

# Curriculum Maps 2016-2017

▷ Supporting Advanced Learners Toward Achievement ◀

**SALTA**

**3rd**

Grade

- English Language Arts
- Math
- Content Integration



**CANYONS**  
School District

# CURRICULUM MAP CANYONS SCHOOL DISTRICT

## Curriculum Mapping Purpose

Canyons School District's curriculum maps are standards-based maps driven by the Utah Core Standards and implemented using Pearson Reading Street for ELA and enVision 2.0 for mathematics. Student's achievement is increased when both teachers and students know where they are going, why they are going there, and what is required of them to get there.

## Curriculum Maps are a tool for:

- **ALIGNMENT:** Provides support and coordination between concepts, skills, standards, curriculum, and assessments
- **COMMUNICATION:** Articulates expectations and learning goals for students
- **PLANNING:** Focuses instruction on standards and targeted skills
- **COLLABORATION:** Promotes professionalism and fosters dialogue between colleagues about best practices pertaining to sequencing, unit emphasis and length, integration, and review strategies
- **SCAFFOLDED INSTRUCTION AND GROUPING STRUCTURES:** The organization of a scaffolded classroom includes whole group, small group (e.g., teacher-led skill-based, cooperative learning), partner, and independent work where students are provided support towards mastery. As students assume more responsibility for the learning, gradual support is decreased in order to shift the responsibility for learning from the teacher to the students.

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## 2016 - 2017 School Year Calendar K - 12

August 2016							September 2016							October 2016						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3							1
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22
28	29	30	31				25	26	27	28	29	30		23	24	25	26	27	28	29
														30	31					
November 2016							December 2016							January 2017						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5					1	2	3	1	2	3	4	5	6	7
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
27	28	29	30				25	26	27	28	29	30	31	29	30	31				
February 2017							March 2017							April 2017						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4				1	2	3	4							1
5	6	7	8	9	10	11	5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28					26	27	28	29	30	31		23	24	25	26	27	28	29
														30						
May 2017							June 2017													
S	M	T	W	T	F	S	S	M	T	W	T	F	S							
	1	2	3	4	5	6					1	2	3							
7	8	9	10	11	12	13	4	5	6	7	8	9	10							
14	15	16	17	18	19	20	11	12	13	14	15	16	17							
21	22	23	24	25	26	27	18	19	20	21	22	23	24							
28	29	30	31				25	26	27	28	29	30								

(Note: School emergency closure days will be made up first on Presidents Day and then during Spring Recess)

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #d3d3d3; border: 1px solid black; margin-right: 5px;"></span> New Teacher Orientation</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> Teachers at School (contract days)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #008000; border: 1px solid black; margin-right: 5px;"></span> Start and End of School Year</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #800080; border: 1px solid black; margin-right: 5px;"></span> First Day of School for Kindergarten</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> K-8 Trimester End</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px dashed black; margin-right: 5px;"></span> Midterm Quarters</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #800000; border: 1px solid black; margin-right: 5px;"></span> Quarter Term End</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ffff00; border: 1px solid black; margin-right: 5px;"></span> No Student Day</li> <li><span style="display: inline-block; width: 15px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border: 1px solid black; margin-right: 5px;"></span> No Student Day K-8</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #00b0f0; border: 1px solid black; margin-right: 5px;"></span> Parent/Teacher Conferences</li> </ul> |
|--|--|
- Red A Day  
Black B day

- New Teacher Orientation Aug 18
- Teachers at School (Contract Days) Aug 19, 22, 23
- First Day of School Aug 24
- First Day of School for Kindergarten Aug 29
- Labor Day Recess Sept 5
- No Student Day Sept 23
- Midterm Quarter Sept 23
- Parent/Teacher Conferences High Schools Sept 26, 27
- Parent/Teacher Conferences Middle Schools Sept 27, 28
- Parent/Teacher Conferences Elementary Schools Sept 28, 29
- Early Out Elementary Schools Sept 29
- No Student Day (Compensatory Day) Sept 30
- Fall Recess Oct 20, 21
- End of 1st Quarter Term Oct 31
- No Student Day Nov 4
- Trimester End Date K-8 Nov 21
- Thanksgiving Recess Nov 23 - 25
- Midterm Quarter Dec 7
- Winter Recess Dec 22-Jan 2
- Martin Luther King Jr. Day Recess Jan 16
- End of 2nd Quarter Term Jan 18
- No Student Day Jan 20
- No Student Day Feb 10
- Parent/Teacher Conferences High Schools Feb 13, 14
- Parent/Teacher Conferences Middle Schools Feb 14, 15
- Parent/Teacher Conferences Elementary Schools Feb 15, 16
- Early Out Elementary Schools Feb 16
- No Student Day (Compensatory Day) Feb 17
- Presidents' Day Recess Feb 20
- Midterm Quarter Feb 22
- Trimester End Date K-8 Mar 2
- End of 3rd Quarter Term Mar 27
- Spring Recess Apr 3 - 7
- Midterm Quarter May 5
- Memorial Day Recess May 29
- No Student Day Grades K-8 Jun 2
- Last Day of School Jun 7

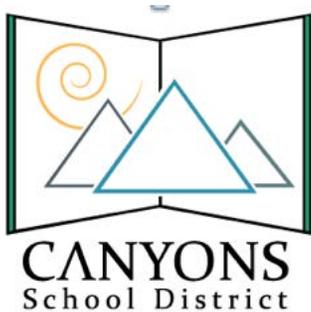
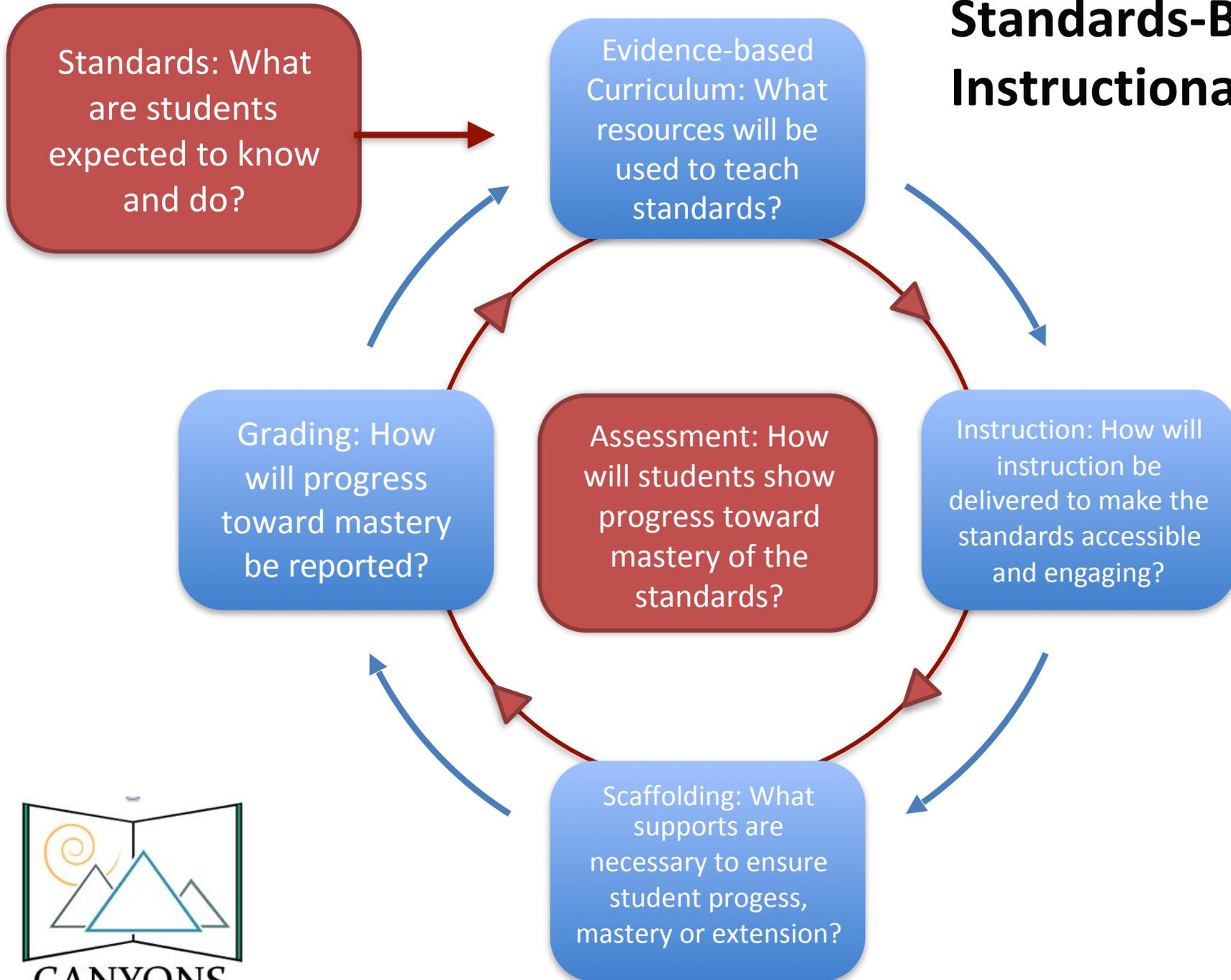
\*Every Friday is an Elementary Student Early Out Day  
 \*\*June 2 Directed Data Day for elementary and middle schools only  
 \*\*\*Elementary early out Sept 29 and Feb 16  
\*\*\*\*This calendar is not for Brighton students.

# Canyons School District Academic Framework to Support Effective Instruction

Multi-Tiered System of Supports (MTSS) for Academics and Behavior			
Multi-Tiered System of Support	(1) Providing high quality core instruction (and intervention) matched to students' needs	(2) using data over time (i.e. rate of learning, level of performance, fidelity of implementation)	(3) to make important educational decisions.
 <b>Student Achievement Principles</b>	<ul style="list-style-type: none"> <li>All CSD students and educators are part of ONE proactive educational system.</li> <li>Evidence-based instruction and interventions are aligned with rigorous content standards.</li> </ul>	<ul style="list-style-type: none"> <li>Data are used to guide instructional decisions, and allocate resources.</li> <li>CSD educators use assessments that are reliable, valid, and connected to standards</li> </ul>	<ul style="list-style-type: none"> <li>CSD educators problem solve collaboratively to meet student needs.</li> </ul>
<ul style="list-style-type: none"> <li>Culture centers around building positive relationships, setting high expectations, and committing to every student's success.</li> <li>Ongoing, targeted, quality professional development and coaching supports effective instruction for ALL students.</li> <li>Leadership at all levels is vital.</li> </ul>			

Core Expectations for ALL Teachers in the Classrooms and Common Areas					
Standards for Instruction	Evidence-based Instructional Priorities	Time Allocation for Instruction	Teacher Learning Data	Student Performance Data	Collaborative Problem Solving for Improvement
Standards clarify what we want students to learn and do.	Planning, instruction, and assessment techniques to increase student engagement and achievement.	School culture ensures that instructional time is maximized to increase student growth.	Teacher learning and professional growth fostered through public practice and ongoing feedback.	Student academic and behavioral performance is assessed using a variety of reliable and valid methods.	Use data to problem solve and make decisions
Curriculum maps with common pacing guides  Instructional content aligned with the Utah Core Standards  Scientifically research-based programs  Standards-based grades and report cards  Cognitive Rigor (Depth of Knowledge – DOK)  International Society for Technology in Education Standards (ISTE)  School-wide Positive Behavioral Interventions and Supports (PBIS)  World-class Instructional Design and Assessment (WIDA)  Federal and state requirements (IEP, 504, ELs)	Classroom Positive Behavioral Interventions and Supports (PBIS)  Explicit Instruction (I, We, Y'all, You)  Instructional Hierarchy: Acquisition, Automaticity, Application (AAA)  Systematic Vocabulary Development  Maximizing Opportunities to Respond (OTR)  Feedback Cycle  Scaffolded Instruction & Grouping (SIG) Structures	Master schedule takes into consideration the learning needs of the student population.  Scheduling is ensured for: <ul style="list-style-type: none"> <li>Intervention and skill-based instruction</li> <li>Special Education services</li> <li>English Language Development (ELD)</li> </ul> Classroom instructional time is prioritized for instruction of standards  Individual and team planning time is used to intentionally increase the application of evidence-based instructional priorities and standards for instruction	Annual setting of goals and documentation of progress (e.g. CSIP, LANDTrust, CTESS)  Supporting teacher growth  Formalized protocols and checklists to monitor and support implementation  Public practice applications: <ul style="list-style-type: none"> <li>Coaching cycles with peer coaches, teacher specialists, achievement coach, and/or new teacher coach</li> <li>Instructional Professional Learning Communities (IPLCs)</li> <li>Learning walkthroughs and targeted observations</li> <li>Lesson Study</li> <li>Video Analysis</li> </ul>	Assessment practices: <ul style="list-style-type: none"> <li>Inform instruction</li> <li>Provide feedback about learning to students, parents, and teachers</li> <li>Build student efficacy</li> <li>Monitor student achievement and behavioral growth</li> <li>Celebrate teaching and learning successes</li> </ul> Assessment Types: <ul style="list-style-type: none"> <li>Classroom Assessing</li> <li>Teams and Schoolwide Assessment</li> <li>Districtwide Standards-based Benchmarks</li> <li>Comprehensive Assessments</li> <li>Screening Assessments (DIBELS, SRI, SMI)</li> <li>Specialized Assessments (WIDA, IDEA, eligibility assessment, Phonics surveys)</li> </ul>	Problem solving process: identify, analyze, plan, and evaluate  Early warning system for identification of risk (academic, behavior, and attendance)  Timely and consistent review of relevant data by teams (e.g. BLT, IPLC, CST): <ul style="list-style-type: none"> <li>Evaluate effectiveness of academic and behavior instruction for all groups of students using valid and reliable data (student and teacher data)</li> <li>Determine needs for academic and behavior intervention</li> </ul>

# Standards-Based Instructional Cycle



# INSTRUCTIONAL PRIORITIES

## Techniques to Increase Student Achievement and Engagement

### Classroom Positive Interventions & Supports (PBIS)

Effect Size: .52

### Explicit Instruction (I do, We do, Y'all Do, You do)

Effect Size: .57

### Instructional Hierarchy (Acquisition, Automaticity, Application)

Effect Size: .57

### Systematic Vocabulary Development

Effect Size: .67

### Maximizing Opportunities to Respond (OTR)

Effect Size: .60

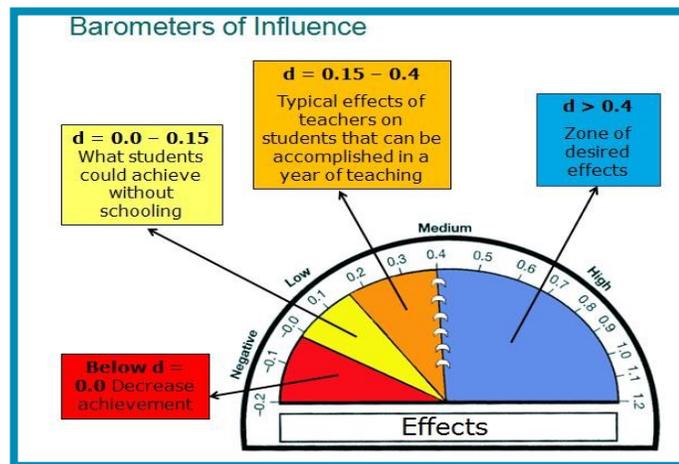
### Feedback Cycle

Effect Size: .75

### Scaffolded Instruction & Grouping

Effect Size: .49

Our time with students is limited and valuable. Every minute we spend with them should be spent using the practices that are most likely to be successful. This requires us to shift our perspective from looking at instructional practices that work to looking at what instructional practices work BEST.



### Works Best?

Meta-analysis offer the strongest evidence base for determining what works best. "A Meta-analysis is a summary, or synthesis of relevant research findings. It looks at all of the individual studies done on a particular topic and summarizes them." (Marzano, 2000). A meta-analysis is simply, a study of studies. Meta-analysis explain the results across studies examined using effect size (ES). Average effects for instruction is 0.20 to 0.40 growth per year (Hattie, 2009). Thus the hinge point for determining what works best is 0.40. Instructional practices above the 0.40 have a high likelihood of increasing learning than those practices below the hinge-point (Hattie, 2009).



# INSTRUCTIONAL PRIORITIES

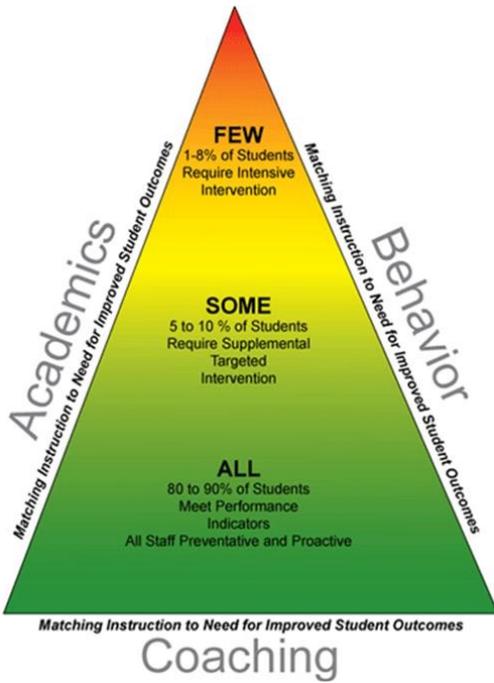
## Techniques to increase Student Achievement and Engagement

### Overview

Priority	Critical Actions for Educators
<b>Classroom Positive Behavioral Interventions and Supports (PBIS)</b>	<ul style="list-style-type: none"> <li>*Clearly identify behavior expectations and explicitly teach them to your students.</li> <li>*Implement reinforcement system for appropriate behavior and routinely evaluate the system for effectiveness.</li> <li>*Recognize students for positive behavior.</li> <li>*Systematically correct problem behaviors.</li> </ul>
<b>Explicit Instruction (I do, We do, Y'all do, You do)</b>	<ul style="list-style-type: none"> <li>*Give clear, straightforward, and unequivocal directions.</li> <li>*Explain, demonstrate and model. Introduce skills in a specific and logical order. Support this sequence of instruction in your lesson plans.</li> <li>*Break skills down into manageable steps. Review frequently.</li> <li>*Demonstrate the skills for students and give opportunity to practice skills independently.</li> </ul>
<b>Instructional Hierarchy: Acquisition, Automaticity, then Application (AAA)</b>	<ul style="list-style-type: none"> <li>*Explicitly teach a skill to students by explaining, demonstrating, and modeling.</li> <li>*Build the skill through practice and use, to gain automaticity.</li> <li>*Provide students with multiple opportunities to apply the skill.</li> </ul>
<b>Systematic Vocabulary Development</b>	<ul style="list-style-type: none"> <li>*Explicitly teach critical vocabulary before students are expected to use it in context.</li> <li>*Teach students to say, define, and use critical vocabulary in discreet steps.</li> <li>*Explicitly teach common academic vocabulary across all content areas.</li> </ul>
<b>Maximizing Opportunities to Respond (OTR)</b>	<ul style="list-style-type: none"> <li>*Actively engage ALL students in learning; students are active when they are saying, writing, or doing.</li> <li>*Pace instruction to allow for frequent student responses.</li> <li>*Call on a wide variety of students throughout each period.</li> </ul>
<b>Feedback Cycle</b>	<ul style="list-style-type: none"> <li>*Provide timely prompts that indicate when students have done something correctly or incorrectly.</li> <li>*Give students the opportunity to use the feedback to continue their learning process.</li> <li>*End feedback with the student performing the skill correctly and receiving positive acknowledgement.</li> </ul>
<b>Scaffolded Instruction and Grouping Structures</b>	<ul style="list-style-type: none"> <li>*Present information at various levels of difficulty.</li> <li>*Use data to identify needs and create small groups to target specific skills.</li> <li>*Frequently analyze current data and move students within groups depending on their changing needs.</li> </ul>

# CLASSROOM PBIS

Effect Size: 0.52



The heart of classroom management is developing routines and organizing environments that promote student success through the active teaching of positive social behaviors.

A well-implemented positive classroom management system will:

- Increase positive behavior in students
- Help students feel more positive towards their teacher, administrator and school
- Help students feel safer in school
- Increase time for academic instruction and decrease teacher time spent correcting problem behaviors

PBIS, or Positive Behavioral Interventions and Supports, is an evidence-based system that helps define the key components of a well-managed classroom. The key components include:

- Clearly establishing classroom rules
- Explicitly teaching rules
- Reinforcing positive behaviors and correcting negative behaviors
- Creating a supportive classroom

## Critical Actions for Educators

- \*Clearly identify behavior expectations and explicitly teach them to students.
- \*Implement reinforcement system for appropriate behavior and routinely evaluate the system for effectiveness.
- \*Recognize students for positive behavior.
- \*Systematically correct problem behaviors.



# CLASSROOM PBIS

Effect Size: 0.52

Key Component	Definition
<p>Clearly Establishing Student Rules</p>	<ul style="list-style-type: none"> <li>• Select 3-5 positively stated and easily remembered rules that align with the school- wide rules                             <ul style="list-style-type: none"> <li>• For example: If the school-wide rules are to Be Safe, Be Kind, Be Responsible. It is appropriate to adopt these same rules for your classroom, and add one or two additional rules that fit the needs of your setting if necessary. It is important to explicitly describe what these rules look like in your classroom.</li> </ul> </li> <li>• Publicly post rules in the classroom in a prominent location.</li> <li>• Determine which routines are needed for your classroom (a routine is a set of skills explicitly taught to students to help them be successful with following the rules). Examples may include:                             <ul style="list-style-type: none"> <li>• Walking in the hallway</li> <li>• Classroom exit</li> <li>• Starting and ending class</li> <li>• Sharpening pencils</li> <li>• Going to the restroom</li> <li>• Transitioning from one activity to the next</li> <li>• Technology use in the classroom</li> </ul> </li> </ul>
<p>Explicitly Teaching Rules</p>	<ul style="list-style-type: none"> <li>• Explicitly teach classroom rules and routines to students.                             <ul style="list-style-type: none"> <li>• Define and model positive examples and non-examples of what the rules look like in the classroom.</li> <li>• Have students model and practice performing the desired behaviors.</li> <li>• Provide positive feedback and corrective feedback as needed during practice of the desired behaviors.</li> </ul> </li> <li>• Review and practice the rules with students throughout the school year.                             <ul style="list-style-type: none"> <li>• Rules should be reviewed more comprehensively at the beginning of each year, after significant breaks in the school schedule (e.g. Thanksgiving, Winter, Spring), and as needed.</li> </ul> </li> <li>• Example Routine                             <ul style="list-style-type: none"> <li>• Classroom exit: Describe and model the routine to students, have students practice lining up, and going back to their seats. It is important that 100% of students demonstrate the behavior correctly. This may require multiple practice opportunities while providing positive and corrective feedback.</li> </ul> </li> </ul>

# CLASSROOM PBIS

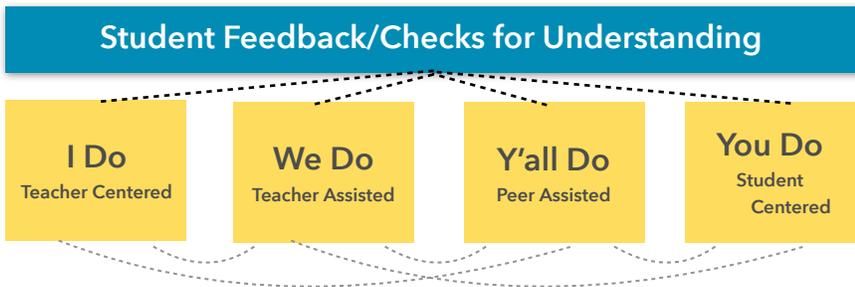
Effect Size: 0.52

Key Component	Definition
<p>Reinforcing Positive Behaviors and Correcting Negative Behaviors</p>	<ul style="list-style-type: none"> <li>It is important to publicly recognize positive behavior, while individually providing corrective feedback when needed. Students should be monitored closely while in the classroom and feedback should be given often. Public positive statements often prompt other students to exhibit the desired behavior.                             <ul style="list-style-type: none"> <li>Example: "I really like the way Sarah is waiting for instructions. She has her materials ready, and she's sitting quietly at her desk."</li> </ul> </li> <li>When correcting negative behavior, provide a precision request to students (whole group) to describe desired behavior. Based on student response, provide positive feedback to the group. If undesired behaviors continue follow-up with a statement of the desired behavior directed to the target student in a private manner as needed. Give the student an opportunity to comply and perform the behavior correctly, and then reward the student with positive feedback.                             <ul style="list-style-type: none"> <li>Example: "I need everyone to be in their seats, have materials ready, and wait quietly for instructions." Teacher observes Sarah talking during the transition, so he/she approaches Sarah quietly. "Sarah, the rule in our class is to wait quietly for instructions. I need you to show me how you sit quietly for instructions." While Sarah is performing the desired behavior, you might say, "Sarah, I appreciate how you are waiting quietly. Great job."</li> </ul> </li> </ul>
<p>Creating a Supportive Classroom</p>	<p>Creating a safe and respectful learning environment allows students to feel supported while learning. It is necessary for teachers to find opportunities to establish positive connections with all students. A teacher's daily interactions influence the students' perception of safety and sense of trust. Considerations for creating a supportive classroom include:</p> <ul style="list-style-type: none"> <li>Make personal connections with students</li> <li>Help students feel like they belong</li> <li>Establish clear classroom norms to demonstrate respect for others</li> <li>Create consistent rules, routines, and arrangements (fosters predictability)</li> <li>Weave positive feedback into daily interactions with students and parents</li> <li>Be available for students (e.g. to ask questions, seek guidance)</li> <li>Actively listen</li> <li>Set a positive tone for learning and problem solving</li> <li>Be aware of your personal emotions, assumptions, and biases and how they may impact your interactions with students</li> </ul>

# EXPLICIT INSTRUCTION

Effect Size: 0.57

Explicit instruction is a systematic method of teaching with emphasis on proceeding in small steps, checking for student understanding, and achieving active and successful participation by all students.



The model is generally characterized with the following components: I Do, We Do, Y'all Do, and You Do. Teachers use student feedback to determine how to progress through the model. For instance, if students are in the “We Do” phase, and the teacher has determined that students aren’t understanding, they should move back to the “I Do” phase to provide more examples.

Explicit Instruction	
I Do (Modeling)	Demonstrate & Describe Use Think-Alouds Involve Students
We Do (Guided Practice)	Heavily Scaffolded with Prompts <ul style="list-style-type: none"> <li>• Tell them what to do.</li> <li>• Ask them what to do.</li> <li>• Remind them what to do.</li> </ul> Continual Checks for Understanding
Y'all Do (Group Practice)	Practice Skill in Small Groups/Partners Continual Checks for Understanding Use Precision Partnering
You Do (Individual Practice)	Monitored Individual Practice Show Mastery of Skill

## Critical Actions for Educators

- \*Give clear, straightforward, and unequivocal directions.
- \*Explain, demonstrate and model. Introduce skills in a specific and logical order. Support this sequence of instruction in your lesson plans.
- \*Break skills down into manageable steps. Review frequently.
- \*Demonstrate the skills for students and then give the opportunity to practice skills independently.
- \* I do, We Do, Y'all Do, You Do.



# INSTRUCTIONAL HIERARCHY

Effect Size: 0.57

## Critical Actions for Educators

- \*Explicitly teach a skill to students by explaining, demonstrating, and modeling.
- \*Build the skill through practice and use, to gain automaticity.
- \*Provide students with multiple opportunities to apply the skill.

Learners follow predictable stages. To begin, the learner is usually halting and uncertain as she tries to use a new skill. With feedback and a lot of practice, the learner becomes increasingly accurate, then automatic (fluent), and confident in using the skill.

Acquisition, automaticity, and application are progressive stages of the instructional hierarchy. Each stage requires its own set of pedagogical approaches and assessment strategies.

The learning stages, along with the goal of each phase and the teacher and student actions present in each stage are listed in the table below.



### Accurate at Skill

- If no, teach skill.
- If yes, move to automaticity.



### Automatic at Skill

- If no, teach automaticity.
- If yes, move to application.



### Able to Apply Skill

- If no, teach application.
- If yes, move to higher level/concept or repeat cycle with new knowledge.

# INSTRUCTIONAL HIERARCHY

Effect Size: 0.57

Learning Stage	Goal	Teacher and Student Actions
<p style="text-align: center;"><b>Acquisition</b></p> <ul style="list-style-type: none"> <li>• First learning stage</li> <li>• Teacher feedback to increase accuracy</li> <li>• Typically associated with DOK 1</li> </ul>	<p>The student can perform the skill accurately with little adult support.</p> <p>If goal met proceed to automaticity stage; if not teach skill.</p>	<ul style="list-style-type: none"> <li>• Teacher actively demonstrates target skill</li> <li>• Teacher uses 'think-aloud' strategy-- especially for thinking skills that are otherwise covert</li> <li>• Student has models of correct performance to consult as needed (e.g., correctly completed math problems on board)</li> <li>• Student gets feedback about correct performance</li> <li>• Student receives praise, encouragement for effort</li> <li>• Students take notes, outlines, points</li> </ul>
<p style="text-align: center;"><b>Automaticity</b></p> <ul style="list-style-type: none"> <li>• Builds habits and fluent skills through repetition and deliberate practice with timely and descriptive feedback</li> <li>• Typically associated with DOK 2</li> </ul>	<p>The student has learned skill well enough to retain, to combine with other skills, and is as fluent as peers.</p> <p>If observed proceed to application; if not continue or move back to acquisition.</p>	<ul style="list-style-type: none"> <li>• Teacher structures learning activities to give student opportunity for active (observable) responding</li> <li>• Student has frequent opportunities to drill (direct repetition of target skill) and practice (blending target skill with other skills to solve problems)</li> <li>• Student gets feedback on fluency and accuracy of performance</li> <li>• Student receives praise, encouragement for increased fluency</li> </ul>
<p style="text-align: center;"><b>Application</b></p> <ul style="list-style-type: none"> <li>• Applying knowledge or skills to relevant application</li> <li>• Typically associated with DOK 3 &amp; 4</li> </ul>	<p>The student uses the skill across situations and settings solving real life problems.</p> <p>If observed, move to new skills and knowledge or move to a higher level concept; if not observed try again or go back to building automaticity.</p>	<ul style="list-style-type: none"> <li>• Teacher structures academic tasks to require that the student use the target skill regularly in assignments</li> <li>• Student receives encouragement, praise for using skill in new settings, situations</li> <li>• Teacher works with parents to identify tasks that the student can do outside of school to practice target skill</li> <li>• Teacher helps student to articulate the 'big ideas' or core element(s) of target skill that the student can modify to face novel tasks, situations</li> <li>• Encourage student to set own goals for adapting skill to new and challenging situations.</li> </ul>

# EXPLICIT VOCABULARY

Effect Size: 0.57

Explicit vocabulary instruction is clear, concise vocabulary instruction presenting the meaning and contextual examples of a word through multiple exposures. It is not the traditional procedure of having students copy a list of words, looking up words, copying definitions, or memorizing definitions.

Systematic vocabulary instruction increases reading comprehension, allows for greater access to content material, increases growth in vocabulary knowledge, and supports struggling readers.

Effective vocabulary/academic language instruction comes down to:

- Connection: Connect the new word to what the student knows, which helps to build the “semantic network” in the brain.
- Use: Academic speaking and writing is constructed as we apply it, not by simply memorizing.

Teacher should explicitly teach words that are:

- Based on essential concepts
- Unknown
- Critical to the future
- Difficult to obtain independently (or through context)

## Critical Actions for Educators

- \*Explicitly teach critical vocabulary before students are expected to use it in context.
- \*Teach students to say, define, and use critical vocabulary in discreet steps.
- \*Explicitly teach common academic vocabulary across all content areas.



### Basic Instructional Protocol

- |  |   |
|--|---|
| 1. Introduce the word                              | 5. Check students’ understanding              |
| 2. Provide student friendly definition of the word | 6. Deepen students’ understanding             |
| 3. Identify word parts, families, and origin       | 7. Check students’ understanding              |
| 4. Illustrate word with examples                   | 8. Review and coach use (possible extensions) |

# OPPORTUNITIES TO RESPOND

Effect Size: 0.57

## Critical Actions for Educators

- \*Actively engage ALL students in learning; students are active if they are saying, writing, or doing.
- \*Pace instruction to allow for frequent student responses.
- \*Call on a wide variety of students throughout each period.



Maximizing the opportunities to respond in a classroom increases students engagements. Engagement allows for positive interactions between teacher and student, creates opportunities for teachers to provide authentic feedback on learning, and decreases inappropriate student behavior.

Students are engaged through opportunities to respond when they are saying, writing, or doing (Feldman). When tied to learning objectives, these opportunities give the teacher and students feedback on their learning and understanding.

Engagement opportunities can be focused on an individual student or a group of students. Each of these approaches has different purposes. The teacher may choose to use a group OTR to minimize the risk the student feels in responding and to increase engagement for all students. Through group OTRs, students not only receive feedback from the teacher, but their peers as well as they hear and see other student responses. When seeking individual student understanding, teachers may choose to use individual OTRs.

Opportunities to respond can be verbal or non-verbal. Verbal responses help students to summarize and share their thoughts with others while non-verbal responses can increase writing skills or give students the opportunity to move around the room.

Structured Non-Verbal	Structured Verbal	Structured Writing	Structured Reading
<ul style="list-style-type: none"> <li>• Cold Calling (Teacher Chosen)</li> <li>• Cold Calling (Random)</li> <li>• Choral Response</li> <li>• Think Pair Share</li> <li>• Precision Partner</li> <li>• Small Group Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Hand Signals</li> <li>• Point at Something</li> <li>• 4 Corners</li> <li>• Response Cards</li> <li>• White Boards</li> <li>• Student Response System</li> </ul>	<ul style="list-style-type: none"> <li>• Note-Taking: Cloze, Cornell</li> <li>• Graphic Organizer</li> <li>• Sentence Starter/ Quick Write</li> <li>• White Boards</li> <li>• Summarizing</li> <li>• Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Partner Reading w/ Comprehension Strategy</li> <li>• Choral Reading</li> <li>• Cloze Reading Guide</li> <li>• Model Reading Strategies</li> <li>• Task for each Reading Segment</li> </ul>

# FEEDBACK

## BETWEEN TEACHERS & STUDENTS

**Effect Size: 0.75**

Feedback lets the learner know whether or not a task was performed correctly, and how it might be improved. Feedback is most effective when it is clear, purposeful, compatible with prior knowledge, immediate, and non-threatening.

**Feedback from Students:**

Educational research indicates that feedback is one of the most powerful drivers of student achievement. John Hattie’s synthesis of the overall effect size of feedback is very high (ES = .75). He states that feedback from students as to what they understand, when they are not engaged, where they make errors, and when they have misconceptions helps make student learning visible to the teacher.

**Feedback to Students:**

Positive academic and behavioral feedback, or teacher praise has been statistically correlated with student on-task behavior (Apter, Arnold & Stinson, 2010) and has strong empirical support for both increasing academic and behavioral performance and decreasing problem behaviors (Gable, Hester, Rock & Hughes, 2009). With regard to reprimands and corrective feedback, there is a continued assertion that teachers maintain a ratio of praise to correction at 3:1 or 4:1 (Gable, Hester, Rock, & Hughes, 2009; Stichter, Lewis, & Wittaker, 2009).

**Feedback Types:**

**Critical Actions for Educators**

- \*Provide timely prompts that indicate when students have done something correctly or incorrectly.
- \*Give students the opportunity to use the feedback to continue their learning process.
- \*End feedback with the student performing the skill correctly and receiving positive acknowledgement.

Type	Description	Example	Non-Example
Positive	Teacher indicates that a target academic or social behavior is correct.	“Correct! 7 X 4 is 28”	“Johnny, pick up your pencil off the floor please
Corrective	Teacher indicates that a behavior is incorrect.	“That’s not quite right, let me give you another clue . . . ”	“Try harder on your math worksheet; I know you can do better.”
Harsh	Teacher shows frustration or is critical of the student.	I can’t believe you <b>still</b> can’t figure this out!	“Let me give you another clue . . . ”
Neutral	Teacher redirects the student or describes what she would like the student to do.	“Johnny, turn to page 4 and start reading.”	“Nice work! You really showed justification for your reasons.”

# FEEDBACK CYCLE

Effect Size: 0.75

	Example	Non-Example
Corrective Sequence	<ul style="list-style-type: none"> <li>• Teacher provides an opportunity to respond</li> <li>• Student responds incorrectly</li> <li>• Teacher indicates that the response was not correct and provides an opportunity for correction</li> <li>• Student gives correct response</li> <li>• Teacher affirms that response was correct</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher provides an opportunity to respond</li> <li>• Student responds incorrectly</li> <li>• Teacher indicates that the response was not correct but does not provide an opportunity for the student to answer correctly</li> </ul>
Expansive Sequence	<ul style="list-style-type: none"> <li>• Teacher provides an opportunity to respond</li> <li>• Student response is a partial response or could be expanded into a higher quality response</li> <li>• Teacher affirms response and provides guidance for expansion/refinement</li> <li>• Student revises or elaborates upon previous response</li> <li>• Teacher acknowledges response as an improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher provides an opportunity to respond</li> <li>• Student response is a partial response or could be expanded into a higher quality response</li> <li>• Teacher affirms response but does not provide guidance for expansion/refinement</li> </ul>
Challenge Sequence	<ul style="list-style-type: none"> <li>• Teacher provides an opportunity to respond</li> <li>• Student response is fully correct</li> <li>• Teacher affirms student response and asks a more difficult question on the same topic as a follow up</li> <li>• Student answers</li> <li>• Teacher responds with positive or corrective feedback</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher provides an opportunity to respond</li> <li>• Student response is fully correct</li> <li>• Teacher affirms student response but does not ask a more difficult question on the same topic as a follow up</li> </ul>

# SCAFFOLDING & GROUPING

Effect Size: 0.57

Scaffolding is a process in which students are given support until they can apply new skills and strategies independently (Rosenshine & Meister, 1992). When students are learning new or challenging task, they are given more assistance. As they begin to demonstrate task mastery, the assistance or support is decreased gradually in order to shift the responsibility for learning from the teacher to the students. Thus, as the students assume more responsibility for learning, the teacher provides less support.

### Structure of the Scaffolded Classroom:

The organization of the scaffolded classroom includes whole group, small group (skill-based or station teaching), partners, and independent work. The scaffolding supports that will be put in place for diverse learners should include interventions for striving and accelerated learners. When using small groups, identify the groups as skill-based or station teaching. Skill-based groups are organized homogeneously based upon the needs of students. Station teaching groups are organized heterogeneously to create diverse groups.

### Critical Actions for Educators

- \*Present information at various levels of difficulty.
- \*Use data to identify needs and create small groups to target specific skills.
- \*Frequently analyze current data and move students within groups depending on their changing needs.

### Types of Scaffolds

Scaffold	Ways to use Scaffolds in an Instructional Setting
<b>Advance Organizers</b>	Tools used to introduce new content and tasks to help student learn about the topic: Venn diagrams to compare and contrast information; flow charts to illustrate processes; organizational charts to illustrate hierarchies; outlines that represent content; mnemonics to assist recall; statements to situate the task or content; rubrics that provide task expectations.
<b>Checklists</b>	Prepare a list of items required, things to be done, or points to be considered; used as a reminder as the student proceeds through the learning task.
<b>Collaborative Grouping</b>	Having students work in partners or small groups with students who can support/model students who may struggle with content.
<b>Concept and Mind Maps</b>	Maps that show relationships: Partially or completed maps for students to complete; students create their own maps based on their current knowledge of the task or concept.
<b>Cue Cards</b>	Prepared cards given to individual groups of students to assist in their discussion about a particular topic or content area: Vocabulary words to prepare for exams; content-specific stem sentences to complete; formula to associate with a problem; concepts to define.
<b>Examples</b>	Samples, specimens, illustrations, problems, modeling: Real objects; illustrative problems used to represent something. Demonstrate and model how to do something, giving an example of what it should look like.
<b>Explanations</b>	More detailed information to move students along on a task or in their thinking of a concept: Written instructions for a task; verbal explanation of how a process works.

Scaffold	Ways to use Scaffolds in an Instructional Setting
<b>Handouts</b>	Prepared handouts that contain task and content-related information, but with less detail and room for student note taking.
<b>Images and Multimedia</b>	Providing an image or other graphic representation, such as a video, that represents the word(s)/concept(s) being taught in conjunction with the explicit vocabulary routine can help to support students in learning new vocabulary and concepts. Images help provide a non-linguistic representation and allow students to recall the term more readily. This technique can be used with any Reading Street Vocabulary (Amazing Words, Story/Lesson Vocabulary), Math Vocabulary, or Content Vocabulary or concepts.
<b>Manipulatives</b>	Manipulatives, such as markers, toothpicks, blocks, or coins, are used to support hands-on learning and provide concrete models to help students solve problems and develop concepts. The students can manipulate the items to increase their understanding and come to accurate conclusions. May also include virtual manipulatives.
<b>Pair-Share</b>	Pose a problem, students have time to think about it individually, and then they work in pairs to solve the problem and share their ideas with the class. Providing think time increase the quality of the response.
<b>Precision Partnering</b>	Strategically appointed partners with assigned roles.
<b>Previewing Text</b>	Before reading a text, preview the text by providing students with an overview/synopsis of the text. This will allow students to know what to expect when they are reading and give them background knowledge to help them understand the text.
<b>Prompts</b>	A physical or verbal cue to remind—to aid in recall of prior or assumed knowledge. Physical: Body movements such as pointing, nodding the head, eye blinking, foot tapping. Verbal: Words, statements and questions such as "Go," "Stop," "It's right there," "Tell me now," "What toolbar menu item would you press to insert an image?" "Tell me why the character acted that way."
<b>Question Cards</b>	Prepared cards with content and task-specific <i>questions</i> given to individuals or groups of students to ask each other pertinent questions about a particular topic or content area.
<b>Question Stems</b>	Incomplete sentences which students complete: Encourages deep thinking by using higher order "What if" questions.
<b>Realia</b>	Anytime the real object, concept, or phenomena can be presented with the actual object helps to support learners in acquiring new ideas and concepts. For example, when teaching about the three types of rocks, having examples of those types for students to see and touch can help them to make deeper connections.
<b>Rubrics</b>	A rubric is an easily applicable form of authentic assessment. A rubric simply lists a set of criteria, which defines and describes the important components of the work being planned or evaluated.
<b>Sentence Frames</b>	Sentence frames provide an opportunity for students to use key vocabulary while providing a structure that may be higher than what they could produce on their own. For example, if students are to compare two ocean creatures, they might say something like "Whales have lungs, but fish have gills." In the preceding sentence, the simple frame is "_____ have _____, but _____ have _____." Note the sentence can be filled in with any content; this differs from cloze sentences that often have only a few possibilities.
<b>Setting &amp; Reviewing Objectives</b>	Providing students with a purpose and intended outcome will help students to know what to focus their attention on and what they should be learning. Having student self-assess their progress towards the objectives at the end of the lesson will provide the teacher with information on their current levels of understanding.
<b>Socratic Seminar</b>	<p>The purpose of a Socratic Seminar is to achieve a deeper understanding about the ideas and values in a text. In the Seminar, participants systematically question and examine issues and principles related to a particular content, and articulate different points-of-view. The group conversation assists participants in constructing meaning through disciplined analysis, interpretation, listening, and participation.</p> <p>Prepare several questions in advance in addition to questions that students may bring to class. Questions should lead participants into the core ideas and values and to the use of the text in their answers. Questions must be open-ended, reflect genuine curiosity, and have no "one-right answer."</p>
<b>Stories</b>	Stories relate complex and abstract material to situations more familiar with students: Recite stories to inspire and motivate learners.
<b>Student Work Exemplars</b>	Providing students with example student work samples can provide models for students to use to support their development of the skill. For example, an anchor paper for a writing assignment of how a sample student responded to the assignment previously will provide an example of what the assignment looks like.
<b>Visual Scaffolds</b>	Pointing to call attention to an object; representational gestures (holding cued hands apart to illustrate roundness; moving rigid hands diagonally upward to illustrate steps or process), diagrams such as charts and graphs; methods of highlighting visual information.

## KINDERGARTEN ½ Day MASTER SCHEDULE COMPONENTS 2016-2017

REGULAR SCHOOL DAY MONDAY-THURSDAY		FRIDAY		30 MINUTES- 1 DAY PER WEEK BRAIN BOOSTER	
70 MINUTES	<p>LITERACY BLOCK</p> <ul style="list-style-type: none"> <li>• Get Ready to Read</li> <li>• Read and Comprehend</li> <li>• Language Arts</li> <li>• Skill-Based Instruction                             <ul style="list-style-type: none"> <li>• ELD</li> <li>• SPED</li> </ul> </li> </ul>	60 MINUTES	<p>LITERACY BLOCK</p> <ul style="list-style-type: none"> <li>• Get Ready to Read</li> <li>• Read and Comprehend</li> <li>• Language Arts</li> <li>• Skill-Based Instruction                             <ul style="list-style-type: none"> <li>• ELD</li> <li>• SPED</li> </ul> </li> </ul>	70 MINUTES	<p>LITERACY BLOCK</p> <ul style="list-style-type: none"> <li>• Get Ready to Read</li> <li>• Read and Comprehend</li> <li>• Language Arts</li> <li>• Skill-Based Instruction                             <ul style="list-style-type: none"> <li>• ELD</li> <li>• SPED</li> </ul> </li> </ul>
30 MINUTES	<p>MATH BLOCK</p> <ul style="list-style-type: none"> <li>• Review or Preteach</li> <li>• Vocabulary and Fluency Practice</li> <li>• Lesson Objectives</li> <li>• Concept /Skill Development and Application                             <ul style="list-style-type: none"> <li>• Skill-Based Instruction</li> </ul> </li> </ul>	30 MINUTES	<p>MATH BLOCK</p> <ul style="list-style-type: none"> <li>• Review or Preteach</li> <li>• Vocabulary and Fluency Practice</li> <li>• Lesson Objectives</li> <li>• Table time/Concept/Skill Development and Application</li> </ul>	30 MINUTES	<p>MATH BLOCK</p> <ul style="list-style-type: none"> <li>• Review or Preteach</li> <li>• Vocabulary and Fluency Practice</li> <li>• Lesson Objectives</li> <li>• Concept /Skill Development and Application                             <ul style="list-style-type: none"> <li>• Skill-Based Instruction</li> </ul> </li> </ul>
30 MINUTES	<p>ORAL LANGUAGE BLOCK</p> <ul style="list-style-type: none"> <li>• PLAN</li> <li>• DO</li> <li>• REVIEW</li> </ul>	30 MINUTES	<p>ORAL LANGUAGE BLOCK</p> <ul style="list-style-type: none"> <li>• PLAN</li> <li>• DO</li> <li>• REVIEW</li> </ul>	30 MINUTES	<p>BRAIN BOOSTER CHOICES</p> <ul style="list-style-type: none"> <li>• PE/Playworks</li> <li>• Technology</li> <li>• Arts/BTS</li> <li>• Media</li> <li>• STEM</li> </ul>
30 MINUTES	<p>FLEX TIME</p> <ul style="list-style-type: none"> <li>• Recess</li> <li>• Extended Literacy, Numeracy or Oral Language Block</li> </ul>			30 MINUTES	<p>FLEX TIME</p> <ul style="list-style-type: none"> <li>• <b>Oral Language Block</b></li> <li>• Recess</li> </ul>

## Title I Full Day Kindergarten MASTER SCHEDULE COMPONENTS 2016-2017

Regular School Day MONDAY-THURSDAY		FRIDAY SCHEDULE		2 HOUR BLOCK 1 DAY PER WEEK BRAIN BOOSTER		1 HOUR BLOCK 2 DAYS PER WEEK BRAIN BOOSTER		40 MINUTE 3 DAYS PER WEEK BRAIN BOOSTER	
135 MINUTES	<b>LITERACY BLOCK</b> <ul style="list-style-type: none"> <li>• Get Ready to Read</li> <li>• Read and Comprehend</li> <li>• Language Arts</li> <li>• Skill-Based Instruction                             <ul style="list-style-type: none"> <li>• SPED</li> </ul> </li> <li>• Content Integration</li> </ul>	135 MINUTES	<b>LITERACY BLOCK</b> <ul style="list-style-type: none"> <li>• Get Ready to Read</li> <li>• Read and Comprehend</li> <li>• Language Arts</li> <li>• Skill-Based Instruction                             <ul style="list-style-type: none"> <li>• SPED</li> </ul> </li> <li>• Content Integration</li> </ul>	120 MINUTES	<b>LITERACY BLOCK*</b> <ul style="list-style-type: none"> <li>• Get Ready to Read</li> <li>• Read and Comprehend</li> <li>• Language Arts</li> <li>• Skill-Based Instruction                             <ul style="list-style-type: none"> <li>• SPED</li> </ul> </li> </ul>	125 MINUTES	<b>LITERACY BLOCK</b> <ul style="list-style-type: none"> <li>• Get Ready to Read</li> <li>• Read and Comprehend</li> <li>• Language Arts</li> <li>• Skill-Based Instruction                             <ul style="list-style-type: none"> <li>• SPED</li> </ul> </li> </ul>	135 MINUTES	<b>LITERACY BLOCK</b> <ul style="list-style-type: none"> <li>• Get Ready to Read</li> <li>• Read and Comprehend</li> <li>• Language Arts</li> <li>• Skill-Based Instruction                             <ul style="list-style-type: none"> <li>• SPED</li> </ul> </li> <li>• Content Integration</li> </ul>
30	<b>ELD</b> <ul style="list-style-type: none"> <li>• Language Central</li> </ul>	30	<b>ELD</b> <ul style="list-style-type: none"> <li>• Language Central</li> </ul>	20	<b>ELD</b> <ul style="list-style-type: none"> <li>• Language Central</li> </ul>	30	<b>ELD</b> <ul style="list-style-type: none"> <li>• Language Central</li> </ul>	30	<b>ELD</b> <ul style="list-style-type: none"> <li>• Language Central</li> </ul>
75 MINUTES	<b>MATH BLOCK</b> <ul style="list-style-type: none"> <li>• Review or Preteach</li> <li>• Vocabulary and Fluency Practice</li> <li>• Lesson Objectives</li> <li>• Concept /Skill Development and Application</li> <li>• Skill-Based Instruction</li> </ul>	75 MINUTES	<b>MATH BLOCK</b> <ul style="list-style-type: none"> <li>• Review or Preteach</li> <li>• Vocabulary and Fluency Practice</li> <li>• Lesson Objectives</li> <li>• Concept /Skill Development and Application</li> <li>• Skill-based Instruction</li> </ul>	50 MINUTES	<b>MATH BLOCK*</b> <ul style="list-style-type: none"> <li>• Review or Preteach</li> <li>• Vocabulary and Fluency Practice</li> <li>• Lesson Objectives</li> <li>• Concept /Skill Development and Application</li> <li>• Skill-Based Instruction</li> </ul> <i>*Compacted based on student need</i>	65 MINUTES	<b>MATH BLOCK</b> <ul style="list-style-type: none"> <li>• Review or Preteach</li> <li>• Vocabulary and Fluency Practice</li> <li>• Practice</li> <li>• Lesson Objectives</li> <li>• Concept /Skill Development and Application</li> <li>• Skill-Based Instruction</li> </ul>	75 MINUTES	<b>MATH BLOCK</b> <ul style="list-style-type: none"> <li>• Review or Preteach</li> <li>• Vocabulary and Fluency Practice</li> <li>• Lesson Objectives</li> <li>• Concept /Skill Development and Application</li> <li>• Skill-Based Instruction</li> </ul>
55	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN	55	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN	55	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN	55	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN	55	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN
45-60	<b>ORAL LANGUAGE BLOCK</b> <ul style="list-style-type: none"> <li>• Plan, Do, Review</li> </ul>			30	<b>ORAL LANGUAGE BLOCK</b> Plan, Do, Review	60	<b>ORAL LANGUAGE BLOCK</b> Plan, Do, Review	60	<b>ORAL LANGUAGE BLOCK</b> Plan, Do, Review
40-55 MINUTES	<b>FLEX TIME</b> <ul style="list-style-type: none"> <li>• <b>Science</b></li> <li>• <b>Social Studies</b></li> </ul>			120 MIN.	<b>BRAIN BOOSTER CHOICES</b> <ul style="list-style-type: none"> <li>• PE/Playworks</li> <li>• Technology</li> <li>• Arts/BTS</li> <li>• Media</li> <li>STEM</li> </ul>	60 MIN.	<b>BRAIN BOOSTER CHOICES</b> <ul style="list-style-type: none"> <li>• PE/Playworks</li> <li>• Technology</li> <li>• Arts/BTS</li> <li>• Media</li> <li>STEM</li> </ul>	40 MIN.	<b>BRAIN BOOSTER CHOICES</b> <ul style="list-style-type: none"> <li>• PE/Playworks</li> <li>• Technology</li> <li>• Arts/BTS</li> <li>• Media</li> <li>STEM</li> </ul>

# 1<sup>ST</sup>-5<sup>TH</sup> GRADE MASTER SCHEDULE COMPONENTS 2016-2017

Intensified Plan MONDAY-THURSDAY		Regular School Day MONDAY-THURSDAY		FRIDAY SCHEDULE		2 HOUR BLOCK 1 DAY PER WEEK BRAIN BOOSTER		1 HOUR BLOCK 2 DAYS PER WEEK BRAIN BOOSTER		40 MINUTE 3 DAYS PER WEEK BRAIN BOOSTER	
180-205 MINUTES	LITERACY BLOCK <ul style="list-style-type: none"><li>• Get Ready to Read</li><li>• Read and Comprehend</li><li>• Language Arts</li><li>• Skill-Based Instruction<ul style="list-style-type: none"><li>• ELD</li><li>• SPED</li></ul></li><li>• Content Integration</li></ul>	180 MINUTES	LITERACY BLOCK <ul style="list-style-type: none"><li>• Get Ready to Read</li><li>• Read and Comprehend</li><li>• Language Arts</li><li>• Skill-Based Instruction<ul style="list-style-type: none"><li>• ELD</li><li>• SPED</li></ul></li><li>• Content Integration</li></ul>	150 MINUTES	LITERACY BLOCK <ul style="list-style-type: none"><li>• Get Ready to Read</li><li>• Read and Comprehend</li><li>• Language Arts</li><li>• Skill-Based Instruction<ul style="list-style-type: none"><li>• ELD</li><li>• SPED</li></ul></li></ul>	135 MINUTES	LITERACY BLOCK* <ul style="list-style-type: none"><li>• Get Ready to Read</li><li>• Read and Comprehend</li><li>• Language Arts</li><li>• Skill-Based Instruction<ul style="list-style-type: none"><li>• ELD</li><li>• SPED</li></ul></li></ul> <i>*Compacted based on student need</i>	150 MINUTES	LITERACY BLOCK <ul style="list-style-type: none"><li>• Get Ready to Read</li><li>• Read and Comprehend</li><li>• Language Arts</li><li>• Skill-Based Instruction<ul style="list-style-type: none"><li>• ELD</li><li>• SPED</li></ul></li></ul>	180 MINUTES	LITERACY BLOCK <ul style="list-style-type: none"><li>• Get Ready to Read</li><li>• Read and Comprehend</li><li>• Language Arts</li><li>• Skill-Based Instruction<ul style="list-style-type: none"><li>• ELD</li><li>• SPED</li></ul></li><li>• Content Integration</li></ul>
	90 MINUTES		MATH BLOCK <ul style="list-style-type: none"><li>• Review or Preteach</li><li>• Vocabulary and Fluency Practice</li><li>• Lesson Objectives</li><li>• Concept /Skill Development and Application</li><li>• Skill-Based Instruction</li></ul>		90 MINUTES		MATH BLOCK <ul style="list-style-type: none"><li>• Review or Preteach</li><li>• Vocabulary and Fluency Practice</li><li>• Lesson Objectives</li><li>• Concept /Skill Development and Application</li><li>• Skill-Based Instruction</li></ul>		90 MINUTES		MATH BLOCK <ul style="list-style-type: none"><li>• Review or Preteach</li><li>• Vocabulary and Fluency Practice</li><li>• Lesson Objectives</li><li>• Concept /Skill Development and Application</li><li>• Skill-based Instruction</li></ul>
55 MIN	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN	55 MIN	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN	55 MIN	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN	55 MIN	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN	55 MIN	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN	55 MIN	RECESS 15 MIN AM or PM  LUNCH and RECESS 40 MIN
45-70 MIN	FLEX TIME <ul style="list-style-type: none"><li>• <b>Science</b></li><li>• <b>Social Studies</b></li></ul>	70 MINUTES	FLEX TIME <ul style="list-style-type: none"><li>• <b>Science</b></li><li>• <b>Social Studies</b></li></ul>			120 MINUTES	BRAIN BOOSTER CHOICES <ul style="list-style-type: none"><li>• PE/Playworks</li><li>• Technology</li><li>• Arts/BTS</li><li>• Media</li><li>• STEM</li></ul>	60 MINUTES	BRAIN BOOSTER CHOICES <ul style="list-style-type: none"><li>• PE/Playworks</li><li>• Technology</li><li>• Arts/BTS</li><li>• Media</li><li>• STEM</li></ul>	40 MINUTES	BRAIN BOOSTER CHOICES <ul style="list-style-type: none"><li>• PE/Playworks</li><li>• Technology</li><li>• Arts/BTS</li><li>• Media</li><li>• STEM</li></ul>
							10 MIN	FLEX TIME <ul style="list-style-type: none"><li>• Content Integration</li></ul>	40 MIN	FLEX TIME <ul style="list-style-type: none"><li>• <b>Content Integration</b></li><li>• Science</li><li>• Social Studies</li></ul>	30 MIN

## Scheduling ELA Special Education Services for Title 1 Elementary Schools (For Students with IEP Reading/Writing Goals)

	Students needing Resource Instruction for Reading/Writing	Students needing ELD Instruction <b>AND</b> Resource Instruction for Reading/Writing
<p>When to provide Special Education Services <i>(Service minutes determined by IEP team based on student need)</i></p>	<p>During Reading Skill- Based Instruction (SBI) – (45 minutes)</p> <ul style="list-style-type: none"> <li>• The Special Education Teacher (and if needed, Special Education Paraeducator) will provide ELA Services during SBI time</li> <li>• Service minutes are determined by IEP team</li> <li>• Service minutes can be up to 45 minutes a day during SBI time</li> <li>• If the IEP team determines a student needs more service time for ELA, choose from the following options:  <u>1<sup>st</sup> option:</u> During Science and Social Studies   <u>2<sup>nd</sup> option:</u> During Content Integration (20-30 minutes)   <u>3<sup>rd</sup> option:</u> During Language Arts Block (35-45 minutes)</li> </ul>	<p><u>*1<sup>st</sup> option:</u> During Science and Social Studies</p> <p><u>2<sup>nd</sup> option:</u> During Content Integration (20-30 minutes)</p> <p><u>3<sup>rd</sup> option:</u> During Language Arts Block (35-45 minutes)</p> <p>*All students need access to the Core Curriculum. In order to provide Special Education services to students needing both SPED and ELD services, please choose from the above 3 options, with option 1 being the least impactful to a student’s access to the Core Curriculum.</p>

## Scheduling Math Special Education Services for Title 1 Elementary Schools (For Students with IEP Math Goals)

	Students needing Special Education Services for Math	Students needing additional math Special Education Instruction <i>(As determined by IEP team)</i>
<p>When to provide Special Education Services <i>(Special education service minutes determined by IEP team based on student need)</i></p>	<p>1<sup>st</sup> option: During Math Skill-Based Instruction (SBI) – (30-45 minutes)</p> <ul style="list-style-type: none"> <li>• The Special Education Teacher (and if needed, Special Education Para-educator) will provide Math Services during SBI time</li> <li>• Service minutes are determined by IEP team</li> <li>• Service minutes can be up to 45 minutes a day during SBI time</li> </ul> <p>2<sup>nd</sup> option: During Math Core Instruction in the General Education Classroom (45-60 minutes) push-in model</p> <p>3<sup>rd</sup> option: Combination of SBI and Core Instruction push-in</p>	<p>If the IEP team determines a student needs more service time for Math, choose from the following options:</p> <p><u>*1<sup>st</sup> option:</u> During Science and Social Studies</p> <p><u>*2<sup>nd</sup> option:</u> During Content Integration (20-30 minutes)</p> <p>*All students need access to the Math Core Curriculum.</p>

# Elementary Assessment Calendar 2016-17

<b>AUGUST</b>	Aug. 24	Start of School Year
	Aug. 24-26	Kindergarten DIBELS Next and DIBELS Math (Individual appointments - No school for K)
	Aug 29 - Sept 6	Reading Inventory/SRI - Grades 4 and 5
<b>SEPTEMBER</b>	Sept. 7 - 29	DIBELS Next - Grades 1-3 (All Students); Grades 4-5 (Only students that score Below Basic on Reading Inventory/SRI)
	Sept. 7 - 29	DIBELS Math - Grades 1-5 (All Students)
<b>OCTOBER</b>	Oct 3 - 28	AAPPL Testing - Dual Immersion Schools Only
<b>NOVEMBER</b>		
<b>DECEMBER</b>	Dec 7- 21	Reading Inventory/SRI - All Students Grades 4 and 5
<b>JANUARY</b>	Jan 4 - Jan 24	DIBELS Next - Grades 1-3 (All Students); Grades 4-5 (Only students that score Below Basic on Reading Inventory/SRI)
	Jan 4 - Jan 24	DIBELS Math - Grades 1-5 (All Students)
	Jan 9 - Mar 10	WIDA ACCESS Online Testing - English Learner Students K - 5
<b>FEBRUARY</b>		
<b>MARCH</b>	Mar 21 - 31	Grade 5 Keyboarding Assessment (Data Due Apr 7 <sup>th</sup> )
<b>APRIL</b>	Apr. 17 - 26	Reading Inventory/SRI - Grades 4 and 5
	Apr 24 - Jun 2	SAGE Summative Testing - Grades 3 - 5
<b>MAY</b>	May 8 - 26	DIBELS Next - Grades 1-3 (All Students); Grades 4-5 (Only students that score Below Basic on Reading Inventory/SRI on latest test)
	May 8 - 26	DIBELS Math - Grades 1-5 (All Students)
<b>JUNE</b>	June 7	End of School Year

ELA District-Wide Standards-Based Benchmarks Elementary			
Grade	Benchmark #1 Due by:	Benchmark #2 Due by:	Benchmark #3 Due by:
K	NA	NA	NA
1 <sup>st</sup>	NA	March 13-17	May 8-12
2 <sup>nd</sup>	Nov. 7- Dec 2	Jan. 17-Feb 9	March 13-31
3 <sup>rd</sup>	Nov. 7-Dec 2	Jan. 17-Feb 9	March 13-31
4 <sup>th</sup>	Nov. 7-Dec 2	Jan. 17-Feb 9	March 13-31
5 <sup>th</sup>	Nov. 7-Dec 2	Jan. 17-Feb 9	March 13-31

**ASSESSMENT CHANGES:**  
There are many changes to testing this school year. Canyons has moved to DIBELS Next and DIBELS Math for fall, midyear and spring. Finally, AAPPL testing for DUAL Immersion schools has been moved to the fall as directed by the Utah Board of Education.

Math District-Wide Standards-Based Benchmarks Elementary				
Grade	Benchmark #1 Due by:	Benchmark #2 Due by:	Benchmark #3 Due by:	Benchmark #4 Due by:
K	NA	NA	NA	NA
1 <sup>st</sup>	November 11	February 24	April 28	June 6
2 <sup>nd</sup>	November 11	February 9	April 28	June 6
3 <sup>rd</sup>	November 11	February 3	April 14	June 6
4 <sup>th</sup>	November 11	February 3	April 21	June 6
5 <sup>th</sup>	November 11	March 3	April 28	June 6

## CSD Assessment System

In a balanced assessment system, teachers use classroom assessments, team assessments, interim assessments, and comprehensive assessments to monitor and enhance student learning in relation to the state standards and goals for student proficiency (Schneider, Egan, & Julian, 2013). This level of balancing requires educators to understand and maximize the role of assessment for feedback and assessment for verification (Schimmer, 2016). In other words, assessment is viewed as teaching in that we engage in accurate assessment processes, day by day and moment by moment, rather than curriculum coverage (Erkens, 2016). Canyons School District System of Assessment outlines an integrated assessment system to support educators with gathering evidence of student thinking patterns in order to plan instructional responses before, during, and after instruction has taken place.

### Assessment Uses

- measure effectiveness of instructional programs for all subgroups of students
- compare levels of achievement across grades, schools, districts, states
- identify gaps in student learning to inform class, team, school, and district supports
- set goals for class, team, school, and district improvement
- share information with stakeholders
- celebrate teaching and learning successes

**Classroom Assessing** Classroom assessing occurs when teachers plan and implement frequent checks for understanding to inform and modify instruction in the moment (instructional agility), within the context of the expected learning.

<b>Purpose</b>	Classroom assessing occurs when teachers plan and implement frequent checks for understanding to inform and modify instruction in the moment (instructional agility), within the context of the expected learning.
<b>Focus</b>	Assessing learning objectives and skills for immediate instructional adjustment
<b>Assessment Tools</b>	<ul style="list-style-type: none"> <li>• Instructional Priorities</li> <li>• Observations</li> <li>• Paired discussions</li> <li>• Quickwrites</li> <li>• Whiteboard responses</li> <li>• Exit tickets</li> <li>• Student self-assessments</li> <li>• Questioning</li> <li>• Performance Tasks</li> <li>• Progress monitoring</li> </ul>
<b>Who Uses the Data</b>	<ul style="list-style-type: none"> <li>• Teacher</li> <li>• Students</li> </ul>
<b>Frequency</b>	<ul style="list-style-type: none"> <li>• Ongoing during instruction</li> </ul>

**School-wide and Team Assessments** are collaboratively designed by teachers to provide timely information about student learning in order to plan and adjust instruction or evaluate focused skill/strategy.

## Assessment supports for School-wide and Team Assessments from Reading Street and enVision 2.0



Realize platform is the online support for access for the Reading Street and enVision 2.0. Teachers can access materials in their grade-level account.

**To log in:** <http://pearsonrealize.com>

**User Name:** SchoolNameCSD03 (insert your school name)  
e.g., ParkLaneCSD03

**Password:** Canyons0grade  
e.g., Canyons03

Reading Street Test Type	Description
Weekly Tests	<ul style="list-style-type: none"> <li>• Multiple-choice tests administered on Day 5</li> <li>• Measure students' understanding of each week's introduced vocabulary words, word analysis skills, and comprehension skills</li> <li>• Help identify students who have mastered each week's words and skills and students who may need intervention</li> </ul>
Unit Tests	<ul style="list-style-type: none"> <li>• Multiple-choice and constructed-response tests administered throughout the year, at the end of each six-week unit</li> <li>• Measure students' abilities to apply target comprehension skills and other literacy skills taught during each unit</li> <li>• Help make instructional decisions for each student</li> <li>• Provide feedback about the effectiveness of your instruction and help to plan instruction for the next unit</li> </ul>
Fresh Reads for Fluency and Comprehension	<ul style="list-style-type: none"> <li>• Multiple-choice and constructed-response tests administered throughout the year, each week after students have been taught the comprehension skill lesson</li> <li>• Give students opportunities to practice the target and review comprehension skills of the week with new selections matched to their instructional reading levels</li> <li>• Provide checks for oral reading fluency</li> </ul>
enVision 2.0 Test Type	Description
Quick Check	<ul style="list-style-type: none"> <li>• Three problems within Independent Practice, Math Practice and Problem Solving to check for student understanding</li> <li>• Assess students' understanding of the lesson content and support building skill-based math groups</li> </ul>
Math Practices Proficiency Rubric	<ul style="list-style-type: none"> <li>• Rubrics designed to monitor development of proficiency with mathematical practice standards</li> </ul>
Topic Assessment	<ul style="list-style-type: none"> <li>• Multiple-choice administered throughout the year, at the end of each topic.</li> <li>• Measure students' skills and ability of math content standards</li> <li>• Help make instructional decisions for each student</li> <li>• Provide feedback about the effectiveness of instruction and help plan instruction for the next topic</li> </ul>
Performance Assessment	<ul style="list-style-type: none"> <li>• Alternative assessments that measure student skill with open ended and short answer assessment items</li> <li>• Students engage in the mathematical practice standards by explaining thinking</li> </ul>

**District-Wide Standards-Based Benchmarks** are designed to assess mastery of targeted standards at set points in time.

**The ELA benchmarks will be given 3 times per year during these windows:**

ELA District-Wide Standards-Based Benchmarks			
Grade Level	Benchmark #1	Benchmark #2	Benchmark #3
Kindergarten	NA	NA	NA
1 <sup>st</sup>	NA	March 13-17	May 8-12
2 <sup>nd</sup>	Nov. 7-Dec 2	Jan. 17-Feb 9	March 13-31
3 <sup>rd</sup>	Nov. 7-Dec2	Jan. 17-Feb 9	March 13-31
4 <sup>th</sup>	Nov. 7-Dec2	Jan. 17-Feb 9	March 13-31
5 <sup>th</sup>	Nov. 7-Dec2	Jan. 17-Feb 9	March 13-31

**The Math benchmarks will be given 4 times per year**

Math District-Wide Standards-Based Benchmarks				
Grade Level	Benchmark #1 Due by:	Benchmark #2 Due by:	Benchmark #3 Due by:	Benchmark #4 Due by:
Kindergarten	NA	NA	NA	NA
1 <sup>st</sup>	November 11	February 24	April 28	June 6
2 <sup>nd</sup>	November 11	February 9	April 28	June 6
3 <sup>rd</sup>	November 11	February 3	April 14	June 6
4 <sup>th</sup>	November 11	February 3	April 21	June 6
5 <sup>th</sup>	November 11	March 3	April 28	June 6

**Reassessing Mastery**

Use assessments to help identify skill deficits that are preventing students from mastering standards. Planning to address skill deficits should also include a plan to evaluate mastery once the skills have been retaught. Reassessing mastery utilizes assessment strategies that include direct observation during whole group and small group instruction. Also consider previewing upcoming units to determine if the skill and standard will be further reviewed and make note of students who will need additional practice opportunities.

**Tracking Learning**

There is a strong correlation between student achievement and a student’s involvement in his or her progress. Having students track their learning using a simple graph and setting goals for each assessment is an easy way to involve students. This provides students with a clear purpose and provides them feedback on their current learning progress.

**Comprehensive Assessments** are designed to measure the degree to which students have mastered content standards or achieved college and careers readiness. See Assessment calendar for SAGE dates.

**Screening Assessments** are designed to efficiently identify students who are at academic risk in reading and math who may need additional intervention. These assessments are standardized and brief. DIBELS and SRI are the screening instruments used in CSD. The following pages have the DIBELS screening targets.

## Canyons School District Elementary Screening Targets

### Kindergarten--Math

DIBELS Math Measure	Performance Description	Fall * Score	Winter Score	Spring Score
Beginning Quantity Discrimination (BQD)	Benchmark	5 +	8 +	12 +
	Below	2 – 4	5 – 7	9 – 11
	Well Below	0 – 1	0 – 4	0 – 8
Number Identification Fluency (NIF)	Benchmark	6 +	15 +	25 +
	Below	4 – 5	8 – 14	14 – 24
	Well Below	0 – 3	0 – 7	0 – 13
Next Number Fluency (NNF)	Benchmark	5 +	11 +	13 +
	Below	2 – 4	8 – 10	10 – 12
	Well Below	0 – 1	0 – 7	0 – 9
DIBELS Math Composite Score	Benchmark	26 +	72 +	88 +
	Below	15 – 25	51 – 71	67 – 87
	Well Below	0 – 14	0 – 50	0 – 66

### Kindergarten--Literacy

DIBELS Next Measure	Performance Description	Fall* Score	Winter Score	Spring Score
Letter Naming Fluency (LNF)	No Benchmarks	No Benchmarks	No Benchmarks	No Benchmarks
First Sound Fluency (FSF)	Benchmark	10 +	30 +	Not Administered
	Below	5 – 9	20 – 29	
	Well Below	0 – 4	0 – 19	
Phoneme Segmentation Fluency (PSF)	Benchmark	Not Administered	20 +	40 +
	Below		10 – 19	25 – 39
	Well Below		0 – 9	0 – 24
Nonsense Word Fluency—Correct Letter Sounds (NWF-CLS)	Benchmark	Not Administered	17 +	28 +
	Below		8 – 16	15 – 27
	Well Below		0 – 7	0 – 14
DIBELS Next Composite Score	Benchmark	26 +	122 +	119 +
	Below	13 – 25	85 – 121	89 – 118
	Well Below	0 – 12	0 – 84	0 – 88

\*Note. Well Below Benchmark for Fall for a Kindergarten student may indicate minimal access to instruction.

## Canyons School District Elementary Screening Targets

### First Grade--Math

DIBELS Math Measure	Performance Description	Fall Score	Winter Score	Spring Score
Number Identification Fluency (NIF)	Benchmark	25 +	Not Administered	Not Administered
	Below	15 – 24		
	Well Below	0 – 14		
Next Number Fluency (NNF)	Benchmark	12 +	Not Administered	Not Administered
	Below	8 – 11		
	Well Below	0 – 7		
Advanced Quantity Discrimination (AQD)	Benchmark	10 +	19 +	21 +
	Below	6 – 9	14 – 18	16 – 20
	Well Below	0 – 5	0 – 13	0 – 15
Missing Number Fluency (MNF)	Benchmark	4 +	8 +	10 +
	Below	2 – 3	5 – 7	7 – 9
	Well Below	0 – 1	0 – 4	0 – 6
Computation (COMP)	Benchmark	5 +	10 +	15 +
	Below	3 – 4	7 – 9	11 – 14
	Well Below	0 – 2	0 – 6	0 – 10
DIBELS Math Composite Score	Benchmark	124 +	44 +	56 +
	Below	88 – 123	33 – 43	44 – 55
	Well Below	0 – 87	0 – 32	0 – 43

### First Grade--Literacy Note: NWF = Nonsense Word Fluency

DIBELS Next Measure	Performance Description	Fall Score	Winter Score	Spring Score
Letter Naming Fluency (LNF)	No Benchmarks	No Benchmarks	Not Administered	Not Administered
Phoneme Segmentation Fluency (PSF)	Benchmark	40 +	Not Administered	Not Administered
	Below	25 – 39		
	Well Below	0 – 24		
Nonsense Word—Correct Letter Sounds (NWF-CLS)	Benchmark	27 +	43 +	58 +
	Below	18 – 26	33 – 42	47 – 57
	Well Below	0 – 17	0 – 32	0 – 46
Nonsense Word—Whole Words Read (NWF-WWR)	Benchmark	1 +	8 +	13 +
	Below	0	3 – 7	6 – 12
	Well Below	N/A	0 – 2	0 – 5
Oral Reading — Words Read Correctly (DORF-WRC)	Benchmark	Not Administered	23 +	47 +
	Below		16 – 22	32 – 46
	Well Below		0 – 15	0 – 31
Oral Reading— Accuracy (DORF-Accuracy)	Benchmark	Not Administered	78% +	90% +
	Below		68% – 77%	82% – 89%
	Well Below		0% – 67%	0% – 81%
DIBELS Next Composite Score	Benchmark	113 +	130 +	155 +
	Below	97 – 112	100 – 129	111 – 154
	Well Below	0 – 96	0 – 99	0 – 110

6/09/16

# Canyons School District Elementary Screening Targets

## Second Grade--Math

DIBELS Math Measure	Performance Description	Fall Score	Winter Score	Spring Score
Computation (COMP)	Benchmark	7 +	11 +	16 +
	Below	4 – 6	8 – 10	12 – 15
	Well Below	0 – 3	0 – 7	0 – 11
Concepts and Applications (C&A)	Benchmark	15 +	23 +	33 +
	Below	8 – 14	15 – 22	22 – 32
	Well Below	0 – 7	0 – 14	0 – 21
DIBELS Math Composite Score	Benchmark	30 +	48 +	66 +
	Below	20 – 29	34 – 47	48 – 65
	Well Below	0 – 19	0 – 33	0 – 47

## Second Grade--Literacy

DIBELS Next Measure	Performance Description	Fall Score	Winter Score	Spring Score
Nonsense Word—Correct Letter Sounds (NWF-CLS)	Benchmark	54 +	Not Administered	
	Below	35 – 53		
	Well Below	0 – 34		
Nonsense Word—Whole Words Read (NWF-WWR)	Benchmark	13 +	Not Administered	
	Below	6 – 12		
	Well Below	0 – 5		
Oral Reading — Words Read Correctly (DORF-WRC)	Benchmark	52 +	72 +	87 +
	Below	37 – 51	55 – 71	65 – 86
	Well Below	0 – 36	0 – 54	0 – 64
Oral Reading— Accuracy (DORF-Accuracy)	Benchmark	90% +	96% +	97% +
	Below	81% – 89%	91% – 95%	93% – 96%
	Well Below	0% – 80%	0% – 90%	0% – 92%
Retell Fluency— (RF)	Benchmark	16 +	21 +	27 +
	Below	8 – 15	13 - 20	18 - 26
	Well Below	0 – 7	0 – 12	0 – 17
DIBELS Next Composite Score	Benchmark	141 +	190 +	238 +
	Below	109 – 140	145 – 189	180 – 237
	Well Below	0 – 108	0 – 144	0 – 179

# Canyons School District Elementary Screening Targets

## Third Grade--Math

DIBELS Math Measure	Performance Description	Fall Score	Winter Score	Spring Score
Computation (COMP)	Benchmark	14 +	22 +	29 +
	Below	9 – 13	16 – 21	22 – 28
	Well Below	0 – 8	0 – 15	0 – 21
Concepts and Applications (C&A)	Benchmark	23 +	36 +	40 +
	Below	13 – 22	22 – 35	26 – 39
	Well Below	0 – 12	0 – 21	0 – 25
DIBELS Math Composite Score	Benchmark	52 +	81 +	99 +
	Below	36 – 51	57 – 80	74 – 98
	Well Below	0 – 35	0 – 56	0 – 73

## Third Grade--Literacy

DIBELS Next Measure	Performance Description	Fall Score	Winter Score	Spring Score
Oral Reading — Words Read Correctly (DORF-WRC)	Benchmark	70 +	86 +	100 +
	Below	55 – 69	68 – 85	80 – 99
	Well Below	0 – 54	0 – 67	0 – 79
Oral Reading— Accuracy (DORF-Accuracy)	Benchmark	95% +	96% +	97% +
	Below	89% – 94%	92% – 95 %	94% – 96%
	Well Below	0% – 88%	0 % – 91%	0% – 93%
Retell Fluency (RF)	Benchmark	20 +	26 +	30 +
	Below	10 – 19	18 – 25	20 – 29
	Well Below	0 – 9	0 – 17	0 – 19
DIBELS Maze (Daze) Adjusted Score	Benchmark	8 +	11 +	19 +
	Below	5 – 7	7 – 10	14 – 18
	Well Below	0 – 4	0 – 6	0 – 13
DIBELS Next Composite Score	Benchmark	220 +	285 +	330 +
	Below	180 – 219	235 – 284	280 – 329
	Well Below	0 – 179	0 – 234	0 – 279

# Canyons School District Elementary Screening Targets

## Fourth Grade--Math

DIBELS Math Measure	Performance Description	Fall Score	Winter Score	Spring Score
Computation (COMP)	Benchmark	18 +	31 +	46 +
	Below	13 – 17	21 – 30	33 – 45
	Well Below	0 – 12	0 – 20	0 – 32
Concepts and Applications (C&A)	Benchmark	32 +	43 +	69 +
	Below	21 – 31	27 – 42	44 – 68
	Well Below	0 – 20	0 – 26	0 – 43
DIBELS Math Composite Score	Benchmark	77 +	83 +	117 +
	Below	52 – 76	55 – 82	81 – 116
	Well Below	0 – 51	0 – 54	0 – 80

## Fourth Grade--Literacy

Literacy Measure	Performance Description	Fall Score	Winter Score	Spring Score
Reading Inventory (SRI)—Lexile Scores	Advanced	Level Not Available		886 +
	Proficient	Level Not Available		770 – 885
	Basic	Level Not Available		500 – 769
	Below Basic	Level Not Available		0 – 499
DIBELS Oral Reading: Words read correctly (DORF-WRC)	Benchmark	90 +	103 +	115 +
	Below	70 – 89	79 – 102	95 – 114
	Well Below	0 – 69	0 – 78	0 – 94
DIBELS Oral Reading: Accuracy (DORF-Accuracy)	Benchmark	96% +	97% +	98% +
	Below	93% – 95%	94% – 96%	95% – 97%
	Well Below	0% – 92%	0% – 93%	0% – 94%
Retell Fluency (RF)	Benchmark	27 +	30 +	33 +
	Below	14 – 26	20 – 29	24 – 32
	Well Below	0 – 13	0 – 19	0 – 23
DIBELS Maze (Daze) Adjusted Score	Benchmark	15 +	17 +	24 +
	Below	10 – 14	12 – 16	20 – 23
	Well Below	0 – 9	0 – 11	0 – 19
DIBELS Next Composite Score	Benchmark	290 +	330 +	391 +
	Below	245 – 289	290 – 329	330 – 390
	Well Below	0 – 244	0 – 289	0 – 329

# Canyons School District Elementary Screening Targets

## Fifth Grade--Math

DIBELS Math Measure	Performance Description	Fall Score	Winter Score	Spring Score
Computation (COMP)	Benchmark	27 +	50 +	56 +
	Below	18 – 26	31 – 49	38 – 55
	Well Below	0 – 17	0 – 30	0 – 37
Concepts and Applications (C&A)	Benchmark	25 +	37 +	58 +
	Below	15 – 24	23 – 36	38 – 57
	Well Below	0 – 14	0 – 22	0 – 37
DIBELS Math Composite Score	Benchmark	58 +	93 +	114 +
	Below	38 – 57	63 – 92	81 – 113
	Well Below	0 – 37	0 – 62	0 – 80

## Fifth Grade--Literacy

Literacy Measure	Performance Description	Fall Score	Winter Score	Spring Score
Reading Inventory (SRI)—Lexile Scores	Advanced	Level Not Available		981 +
	Proficient	Level Not Available		865 – 980
	Basic	Level Not Available		600 – 864
	Below Basic	Level Not Available		0 – 599
DIBELS Oral Reading: Words Read Correctly (DORF-WRC)	Benchmark	111 +	120 +	130 +
	Below	96 – 110	101 – 119	105 – 129
	Well Below	0 – 95	0 – 100	0 – 104
DIBELS Oral Reading: Accuracy (DORF-Accuracy)	Benchmark	98% +	98% +	99% +
	Below	95% – 97%	96% – 97%	97% – 98%
	Well Below	0% – 94%	0% – 95%	0% – 96%
Retell Fluency (RF)	Benchmark	33 +	36 +	36 +
	Below	22 – 32	25 – 35	25 – 35
	Well Below	0 – 21	0 – 24	0 – 24
DIBELS Maze (Daze) Adjusted Score	Benchmark	18 +	20 +	24 +
	Below	12 – 17	13 – 19	18 – 23
	Well Below	0 – 11	0 – 12	0 – 17
DIBELS Next Composite Score	Benchmark	357 +	372 +	415 +
	Below	258 – 256	310 – 371	340 – 414
	Well Below	0 – 257	0 – 309	0 – 339

## Progress Monitoring

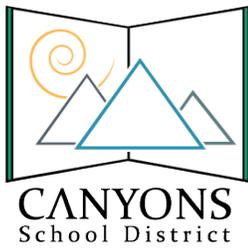
**What is progress monitoring?** Progress monitoring is “a scientifically based practice that is used to assess students’ academic performance and evaluate the effectiveness of instruction.” (National Center on Student Progress Monitoring, 2016). Progress monitoring involves frequent measurement of student performance for the purpose of evaluating a student’s growth toward a targeted objective. For example, the trajectory of reading growth can be measured with the weekly administration of reading probes. This is a powerful use of formative evaluation that can be highly motivating to students as they self-monitor their progress. Progress monitoring is an assessment strategy that has been demonstrated to have a high effect size on student achievement, particularly when data are graphed, shared with students, and decision rules are used to determine when an intervention is working or when interventions should be intensified.

**Why progress monitor?** Best practice indicates that students who are significantly behind in basic foundational skills, such as reading and math, should receive **intensified instruction** accompanied by frequent progress monitoring for the purpose of evaluating a student’s growth toward a targeted objective and **adjusting instruction** based on resulting student growth. For example, the rate of improvement can be measured with weekly administration of reading probes. This is a powerful use of formative evaluation and makes skill improvement visible to teacher and student alike. Being able to see progress is highly motivating; lack of progress prompts problem-solving and joint responsibility (student, teachers, and where possible, parents) to find a solution. Progress monitoring is essential for examining the effectiveness of Tier 2 and Tier 3 interventions within a Multi-Tiered System of Support (MTSS).

**Who is progress monitored?** Students who perform at grade-level (i.e. are meeting benchmarks) should not be progress monitored. Screening three times per year is enough to make sure these students are continuing on an appropriate trajectory. Students who are currently performing below or well-below benchmark on curriculum-based measures (e.g. DIBELS Next, DIBELS Math) should be progress monitored weekly, bi-weekly or monthly, depending on how far behind students are and the resources available for progress monitoring and intensified interventions. Ideally, students who are well below benchmark and are receiving intensive interventions should be progress monitored weekly with a curriculum-based measure. Once students are consistently performing above benchmark levels, progress monitoring is no longer necessary. As a very general rule of thumb, in elementary schools, one would expect the number of students requiring progress monitoring to be between 10% and 25% of the total student population. For some highly impacted schools with large numbers of ELs and/or high poverty, the percentage may be higher. However, keep in mind that progress monitoring too many students eats up resources that could be used for intensifying interventions for students who need it most.

**Who conducts the progress monitoring assessment?** Ideally, the teachers primarily responsible for a given student’s intensive intervention should conduct the progress monitoring. This could be a classroom teacher, a special education teacher, or an intervention specialist. However, instructional assistants and specialized staff who instruct students may also progress monitor students. In any case, in order to best inform decision making, data from progress monitoring should be shared with all teachers responsible for a student’s learning, the student, and the parents of that student. It is the combination of all of these individuals that makes a collaborative intervention team. If a teacher or staff member progress monitors 1-2 students per group per day, 10-20 students could potentially be monitored biweekly.

**When to progress monitor within the school day?** Each site will need to identify appropriate times to progress monitor students. Some suggested times for progress monitoring include: during skills-based instruction, during entrance and exit tasks, etc.



**Instructional Supports Department**  
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## **Advanced Learner Services in Canyons School District**

### **Definition**

SALTA, advanced learner services in the Canyons School District, is a Latin-based word that means “leap” which stands for *Supporting Advanced Learners Toward Achievement*.

### **Mission Statement**

To support teachers and administrators with rigorous curriculum, instruction, and assessment focusing on depth, complexity, higher-order thinking skills, and creativity to meet the needs of gifted and advanced learners by providing a continuum of extended learning activities, enrichment opportunities, and appropriately challenging curriculum.

### **Program Philosophy and Beliefs**

Canyons School District administration and teachers believe that gifted and talented students have unique cognitive, academic, creative, and social needs. Students have a right to varied programming which is appropriate to their cognitive and academic abilities, thus optimizing learning opportunities. Programming must strive to offer a challenging learning environment that focuses on high achievement and is responsive to individual student needs. Canyons School District supports the use of research and evidence-based learning strategies, which provide a strong correlation between delivery of instruction and student learning outcomes. With these values at the forefront, Canyons School District continues to develop a continuum of SALTA services ranging from district-wide programs, school-specific services, and magnet schools.

### **SALTA Goals**

**Goal 1:** Meet the needs of “gifted and talented” students.

**Goal 2:** Offer advanced learning opportunities at every school and grade-level.

**Goal 3:** Prepare all students with the skills necessary to be college and career ready.

**Goal 4:** Provide opportunities for students to focus on application of materials being learned, depth and complexity of those materials, and provide students with extended learning opportunities using the grade level Common Core State Standards as the foundation.

**Goal 5:** Ensure that ALL students are ready to begin higher-level courses in the secondary setting.

### **SALTA Magnet Services**

SALTA (Supporting Advanced Learners Toward Achievement) Magnet Services are designed to serve students in grades 1-5 who demonstrate high cognitive and academic ability when compared with others of their age, experience, and/or environment. Students in a SALTA Magnet classroom require learning experiences beyond what is typically provided in the regular classroom. In the SALTA Magnet Program the pace of the curriculum is designed to meet the needs of advanced learners with an emphasis on depth and complexity, application of learning materials, higher order thinking skills, and creativity.

## SALTA Focus

### **DEPTH**

Refers to approaching or studying something from the concrete to the abstract, from the known to the unknown.

Requires students to examine topics by determining the facts, concepts, generalization, principles and theories related to them.

### **COMPLEXITY**

Complexity is the why and how approach that connects and bridges to other disciplines to enhance the meaning of a unit of study.

*Complexity encourages students to:*

- Relate concepts and ideas at a more sophisticated level
- See associations among diverse subjects, topics or levels
- Find multiple solutions from multiple points of view

*Complexity has three major dimensions:*

- Relationships Over Time: Between the past, present and future, and within a time period
- Relationships From Different Points of View: Multiple perspectives, opposing viewpoints, differing roles and knowledge
- Interdisciplinary Relationship: With, between and across the disciplines

### **HIGHER ORDER THINKING SKILLS**

Higher order thinking skills include critical, logical, reflective, metacognitive, and creative thinking.

Higher order thinking skills are activated when individuals encounter unfamiliar problems, uncertainties, questions, or dilemmas.

“In teaching for thinking, the concern is NOT how many answers students know, but what they do when they do NOT know; the goal is not merely to reproduce knowledge, but to create knowledge and grow in cognitive abilities.” (*Best Practices in Gifted Education: An Evidence-Based Guide, 2007*)

Supporting Framework for Depth, Complexity, and Higher Order Thinking Skills taken from “Hess’ Cognitive Rigor Matrix.”

# SALTA Individualized Learning Plan

An **Individualized Learning Plan**, or **ILP** is a written record of gifted and talented programming for each student in the Canyons School District SALTA magnet program. The **ILP** is meant to follow the student throughout their school years and is to be used to plan and make educational decisions.

The **ILP** is a record of SALTA programming services and is meant to be a connection between the student performance profile created at the time of identification for SALTA magnet services and the student's progress in the program. **ILP**'s aid the teacher in providing a challenging learning environment that focuses on high achievement and is responsive to individual student needs. Your child's **ILP** will include the specific programs and practices that will be utilized to **Extend** and **Supplement** your child's **Core** instruction.

All SALTA students are taught the Utah **Core** standards, which are evidence-based, aligned with expectations for success in college and the work place, and allow students to compete internationally. The new standards stress rigor, depth, clarity, coherence, and 21<sup>st</sup> century skills, drawing from the National Assessment of Educational Progress (NAEP) Frameworks in Reading and Writing and the Trends in International and Science Study (TIMSS) report in Mathematics.

Extensions of core standards provide students with activities that are added to **Core** to deepen understanding. Examples of curriculum supports that may be used to **Extend** the core include:

- Research and Inquiry Skills from Reading Street
- Project-Based Learning
- District supported Extended Learning Activities
- Math Exemplars
- Extending the Challenge in Mathematics by Dr. Linda Sheffield

**Supplemental** curriculum supports are used to challenge students beyond the **Extend** and **Core** supports. *Junior Great Books* will be used as a supplement for SALTA English Language Arts. *Math M<sup>2</sup>: Mentoring Young Mathematicians* and *Math M<sup>3</sup>: Mentoring Mathematical Minds*, as well as *Mathematics Units for High Ability Learners* will be used as a supplement for SALTA math.

Depth, complexity, higher-order thinking skills, and creativity are the programming focus in SALTA to support gifted and talented learners. This focus ensures that the needs of SALTA students are being met and that the curriculum maintains a high level of rigor.

Each student will work towards a "Challenge" goal in English Language Arts and Math and an "Improvement" goal in English Language Arts and Math. A Challenge goal is meant to extend a student's thinking in any area of strength or interest. An Improvement goal is meant to address an area of need for the student, or an area in which the student needs to improve. Challenge and Improvement goals will be articulated on the **ILP**. Additional goals may be added if appropriate.

At the beginning of each school year, the student's current teacher in conjunction the student's parents will review the previous year's **ILP** and set new goals. The **ILP** will then be reviewed at each parent-teacher conference in conjunction with the Canyons School District report card and adjustments will be made as needed.

## Writing S.M.A.R.T. Goals

Goals on an *ILP* should be simplistically written and clearly define what the student is going to do.

The purpose of SMART goals in the *ILP* is to inspire students toward new levels of learning and growth. SMART goals provide clear instructional and effective guidance for each student in the SALTA Magnet Program. SMART goals provide a measure of where we believe the student will progress as a result of programming. Results of SMART goals provide the student with an indicator of success, self-efficacy, and next steps.

A **S.M.A.R.T.** goal is defined as one that is **Specific, Measurable, Attainable, Results-oriented & relevant, and Time-bound.**

S	Specific
M	Measurable
A	Attainable
R	Results-oriented & Relevant
T	Time-bound

**Specific:** Goals should be simplistically written and clearly define what you are going to do. The goal should answer questions such as **how much, for whom, for what?**

**Measurable:** Goals should be measurable so that you have tangible evidence that you have accomplished the goal. The goal has an outcome that can be assessed or measured in some way. **Which requirements will be met?**

**Attainable:** An attainable goal has an outcome that is realistic given the current situation, resources and time available.

**Results-oriented & Relevant:** A results orientated and relevant goal helps maintain focus on the mission or the “bigger picture.” **Why-the specific reasons or purposes of accomplishing the goal.**

**Time-bound:** A time-bound goal includes realistic timeframes. Sometimes timeframes are imposed. When that is the case, carefully consider what is attainable within the imposed timeframe. The goal should have a clearly defined time frame including a deadline date. **When will it happen?**

### Not a SMART goal:

(Student) will improve his/her writing skills.

*Does not identify a measurement or time frame, nor identify why the improvement is needed or how it will be used.*

### SMART goal:

At the end of the first semester, (student) will touch-type a passage of text at a speed of 20 words per minute, with no more than 10 errors, with progress measured on a five-minute timed test.

(Student) will improve his/her writing and spelling skills so he/she can write a clear, cohesive, and readable paragraph consisting of at least 3 sentences, including compound and complex sentences that are clearly related by the end of the 2<sup>nd</sup> semester.

## Examples of S.M.A.R.T. Goals

### **Challenge Goals**

A challenge goal is meant to extend a student's thinking in any area of strength or interest.

#### **Math**

Susie will improve her ability to justify her mathematical thinking through writing to a level four by January using the writing rubrics in enVision or Exemplars.

Dorothy will deepen her math knowledge by passing the post test in the Math M3 unit with a score of 90% or greater by the end of the unit.

#### **English Language Arts**

Johnny will improve the number of times he participates in Shared Inquiry discussions in small group from 2 times to 5 times during each 30 minute session.

Paul will be able to focus ideas to a level 4 in an expository composition with well supported facts from the Expository Composition rubric found in Reading Street by January 15.

### **Improvement Goals**

An improvement goal is meant to address an area of need for the student, or an area in which the student needs to improve.

#### **Math**

Susie will improve her ability to justify her mathematical thinking through writing to a level three by January using the writing rubrics in enVision or Exemplars.

Corky will improve his fluency with multiplication within 100 math facts by passing an progress monitoring probe every two weeks until mastery is reached or April 1.

#### **English Language Arts**

Paul will be able to focus ideas to a level 3 in an expository composition with well supported facts from the Expository Composition rubric found in Reading Street by January 15.

Bronson will have organization within the opinion essay with ideas that are presented in logical order to a level 3 from the Persuasive Essay rubric found in Reading Street by January.

#### **Behavior**

Sharon will complete three tasks daily as assigned and tracked by the teacher until the next parent teacher conference in March.

## Evidence of Progress RIOT

Evidence of progress on a SALTA *ILP* is measured using the RIOT model. The RIOT model helps teachers work efficiently and quickly to decide what relevant information to collect on student academic performance and behavior. The RIOT model is not itself a data collection instrument. It is an organizing framework or heuristic that can enhance the quality of data collected.

The RIOT model includes four potential sources of student information: **R**eview, **I**nterview, **O**bserve, and **T**est.

R	Review
I	Interview
O	Observe
T	Test (Includes Rubrics)

**Review:** Reviewing information consists of examining past or present records collected on the student. Examples include report cards, office disciplinary referral data, state test results, attendance records, curriculum-based measurement (CBM) testing, common formative assessments (CFA's), and summative assessments. Less obvious examples include student work samples, physical products of teacher interventions (e.g., a sticker chart used to reward positive student behaviors), and emails sent by a teacher to a parent detailing concerns about a student's study and organizational skills.

**Interview:** Interview targets can include teachers, paraprofessionals, administrators, and support staff in the school setting who have worked with or had interactions with the student in the present or past. Prospective interview candidates can also consist of parents and other relatives of the student as well as the student himself or herself. Interviews can be conducted face-to-face, via telephone, or email correspondence. Interviews can be structured (using a pre-determined series of questions) or follow an open-ended format, with questions guided by information supplied by the respondent.

**Observation:** Direct observation of the student's academic skills, study and organizational strategies, degree of focus and attention, and general conduct can be useful information. Observations can be structured (e.g., tallying the frequency of call-outs or calculating the percentage of on-task intervals during a class period) or less structured (e.g., observing a student and writing a running narrative of the observed events). Other examples of observation include a teacher keeping a frequency count of the times that he/she redirects an inattentive student to task during a certain time period or a school psychologist observing the number of intervals a student talks with peers during independent seatwork. Less obvious examples of observation include having a student rate his/her own academic performance or behavior (self-monitoring) and encouraging a parent to send to school narrative observations of the student's typical routine for completing homework.

**Test:** A test or examination is an assessment intended to measure a student's knowledge, skill, and/or aptitude. Testing takes many different forms and is conducted in a variety of ways. Examples of tests include curriculum-based measurements, formative and summative assessments, and the use of rubrics.

# SALTA Individualized Learning Plan (ILP)

<b>Plan Year</b>					
<b>Student Name</b>					
<b>Student ID #</b>					
<b>Grade</b>	<input type="checkbox"/> 1 <sup>st</sup>	<input type="checkbox"/> 2 <sup>nd</sup>	<input type="checkbox"/> 3 <sup>rd</sup>	<input type="checkbox"/> 4 <sup>th</sup>	<input type="checkbox"/> 5 <sup>th</sup>
<b>School</b>	<input type="checkbox"/> Peruvian Park Elementary		<input type="checkbox"/> Sunrise Elementary		
<b>Other Services</b>	<input type="checkbox"/> IEP		<input type="checkbox"/> 504		<input type="checkbox"/> ELL

## Student Profile

**Program Entrance Date:** \_\_\_\_\_

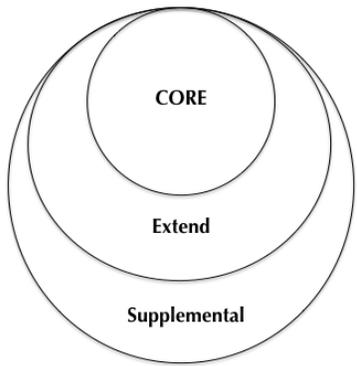
**Qualification Testing Date:** \_\_\_\_\_

Cognitive (CogAT 6)		Academic (SAGES-2) [If Applicable]		Academic (IOWA-E) [If Applicable]	
Verbal Percentile Rank		Math/Science Percentile Rank		Reading Percentile Rank	
Quantitative Percentile Rank				Math Percentile Rank	
Nonverbal Percentile Rank		Language Arts/Social Studies Percentile Rank		Social Studies Percentile Rank	
Composite Percentile Rank				Science Percentile Rank	
Other Assessments:		Scores:		Word Analysis Percentile Rank	
				Vocabulary Percentile Rank	

Present Levels of Academic Performance					
DIBELS		Computation		SRI (4 <sup>th</sup> – 5 <sup>th</sup> )	
Fall		Fall		Fall	
Winter		Winter		Winter	
Spring		Spring		Spring	

## SALTA Programming

**Depth, Complexity, Higher Order Thinking Skills, Creativity**

English Language Arts		Math	
<p><b>CORE:</b> -Reading Street</p> <p><b>EXTEND:</b> -Reading Street w/Research &amp; Inquiry Skills (R&amp;I Skills) -Project-Based Learning (PBL) -Extended Learning Opportunities (ExLO)</p> <p><b>SUPPLEMENTAL:</b> -Jr. Great Books</p>		<p><b>CORE:</b> -enVision w/Math Investigations</p> <p><b>EXTEND:</b> -Math Exemplars -Extending the Challenge (A &amp; B), Sheffield (ExCh) -Extended Learning Opportunities (ExLO) -Project-Based Learning (PBL)</p> <p><b>SUPPLEMENTAL:</b> -Math M<sup>2</sup> &amp; M<sup>3</sup> -Mathematics Unit for High-Ability Learners</p>	
<p>Extend and Supplemental material support(s) marked below align to S.M.A.R.T goal(s) that will demonstrate student growth. (Mark at least one).</p>		<p>Extend and Supplemental material support(s) marked below align to S.M.A.R.T goal(s) that will demonstrate student growth. (Mark at least one).</p>	
<p style="text-align: center;"><u>Extend</u></p> <p><input type="checkbox"/> R&amp;I Skills    <input type="checkbox"/> PBL    <input type="checkbox"/> ExLO</p>		<p style="text-align: center;"><u>Extend</u></p> <p><input type="checkbox"/> Exemplars    <input type="checkbox"/> ExCh    <input type="checkbox"/> ExLO    <input type="checkbox"/> PBL</p>	
<p style="text-align: center;"><u>Supplemental</u></p> <p><input type="checkbox"/> Jr. Great Books</p>		<p style="text-align: center;"><u>Supplemental</u></p> <p><input type="checkbox"/> Math M<sup>2</sup> or M<sup>3</sup>    <input type="checkbox"/> High-Ability Learners Unit</p>	

### Student SMART Goals

<u>Specific</u> <u>Measurable</u> <u>Attainable</u> <u>Results-oriented &amp; Relevant</u> <u>Time-bound</u>
Initial Conference Date:
<b><u>ENGLISH LANGUAGE ARTS</u></b>
SMART Goal:
Evidence of Progress: (Describe Below) <u>R</u> eview <u>I</u> nterview <u>O</u> bservation <u>T</u> est (Includes Rubrics)
<u>R</u> eview
<u>I</u> nterview
<u>O</u> bservation
<u>T</u> est (Includes Rubrics)
Follow-up Conference Date:
Describe Progress:
Final Notes:

### Student SMART Goals

<u>Specific</u> <u>Measureable</u> <u>Attainable</u> <u>Results-oriented &amp; Relevant</u> <u>Time-bound</u>
Initial Conference Date:
<b><u>MATH</u></b>
SMART Goal:
Evidence of Progress: (Describe Below) <u>R</u> eview <u>I</u> nterview <u>O</u> bservation <u>T</u> est (Includes Rubrics)
<u>R</u> eview
<u>I</u> nterview
<u>O</u> bservation
<u>T</u> est (Includes Rubrics)
Follow-up Conference Date:
Describe Progress:
Final Notes:

### Student SMART Goals

<u>Specific</u> <u>Measureable</u> <u>Attainable</u> <u>Results-oriented &amp; Relevant</u> <u>Time-bound</u>
Initial Conference Date:
<b>OTHER</b> Other Goal "Areas" may include Social/Behavioral, ELA, Math, Content Integration, Science, Social Studies, etc. Goal must be school related.
Area:
SMART Goal:
Evidence of Progress: (Describe Below) <u>R</u> eview <u>I</u> nterview <u>O</u> bservation <u>T</u> est (Includes Rubrics)
<u>R</u> eview
<u>I</u> nterview
<u>O</u> bservation
<u>T</u> est (Includes Rubrics)
Follow-up Conference Date:
Describe Progress:
Final Notes:

# Signature Page

## Initial Conference

Date: \_\_\_\_\_

Student \_\_\_\_\_

Parent \_\_\_\_\_

Teacher \_\_\_\_\_

Other/Title \_\_\_\_\_

## Follow-up Conference

Date: \_\_\_\_\_

Student \_\_\_\_\_

Parent \_\_\_\_\_

Teacher \_\_\_\_\_

Other/Title \_\_\_\_\_

# Homework—What Works?

Research indicates that when homework is carefully planned, there can be significant benefits to student achievement such as: increased time on task, readiness for classroom instruction, supports self-regulation, and develops traits of independence and responsibility.

Homework Characteristics:

- Build fluency
- Apply knowledge
- Reviewing and practicing past learning
- Extend learning across topics and disciplines

Rick Wormeli



## Key Findings of Homework Research

### Purpose

Homework needs a clear purpose and should be able to be completed *without* assistance. Homework should focus on the process of learning rather than the final result (Schimmer, 2016).

Valid purposes for homework include:

1. Practicing a skill or process that students can do independently, but not fluently;
2. Elaborating on information that has been addressed in class to deepen students' knowledge; and,
3. Providing opportunities for students to explore topics of their own interest (Vatterott, 2009).

**CSD resources** that align to these purposes include the [ELA Homework Skills](#) pages and the *enVision Daily Common Core Review Sheet*. Additionally, *Reflex Math* is an effective tool for allowing students to develop their fluency in the basic operations.

- Homework provides formative data for teachers and learners when it becomes a tool for continuing the learning the next day (Erkens, 2016).
- “Homework is most effective when it covers material already taught. Material that was taught the same day is not as effective as an assignment given to review and reinforce skills learned previously” (AFT, 2006)
- “Homework is also most effective when it is used to reinforce skills learned in previous weeks or months” (AFT, 2006). This will provide additional reinforcement to build automaticity in the concept being practiced.

### Time and Communication

- Shorter, more frequent homework is better than longer assignments given infrequently (Vatterott, 2009).
- Homework should be time-based. This means students should be given a specific amount of time to complete it and stop when that time is up. The general rule of thumb in elementary is 10 minutes per grade level (Cooper, 2001).
- Simple feedback keeps the focus on learning (Hattie, 2008). For example, when providing feedback on math homework it would be best to review student responses prior to math instruction. If a common error is found in student work, then take a few minutes to explain to the students that many students in the class missed the problem and we are going to take a few minutes to learn from our errors. If it is only a small group of students who missed the skill, then provide additional instruction to those students in a small group setting.
- Parents should be made aware of the purpose of the homework assignments, the length of time the student should spend, and the expectations. Parents should feel free to call a halt to homework assignments if their child is getting frustrated, spending an inordinate amount of time on homework, or obviously doesn't understand what to do. Sending a note or an email to the teacher is entirely appropriate and teachers should respond positively.

The overall message of homework research is the right amount of homework that is high quality, provides timely feedback, and is purposeful can be beneficial for learning and too much homework has negative effects on student achievement.

## Creating a Classroom Culture for Structured Interactions

Arrange Classroom	Examples
Seating to be conducive to structured interactions with pairs and groups	<ul style="list-style-type: none"> <li>• Maintain visibility to teacher</li> <li>• Maintain visibility to reference points, (e.g., whiteboard, response frames, anchor charts etc.)</li> <li>• Possible seating arrangements                             <ul style="list-style-type: none"> <li>○ rows – one partner to the left and one partner behind</li> <li>○ tables - one partner across and one beside</li> <li>○ chevron – one partner to the side and one behind</li> </ul> </li> </ul>
Assign and Alternate Partners	Examples
<ul style="list-style-type: none"> <li>• First few days of school, look for ways to use random partnering</li> <li>• Allow for students to partner with at least 2 different classmates</li> <li>• Allow for students to experience different individuals</li> </ul>	<u>Partnering Strategies:</u> <ol style="list-style-type: none"> <li>1. Assign partners</li> <li>2. Designate 1s and 2s/As and Bs (no 3's – have second 2)</li> <li>3. Provide question or discussion topic</li> <li>4. Assign which partner should go first</li> <li>5. State how much time will be allotted                             <ul style="list-style-type: none"> <li>* structure Academic Language – (see sentence frames)</li> </ul> </li> <li>6. Circulate to monitor discussions</li> <li>7. Call on 1-4 individuals who had good answers; make it look random (no hands up)</li> <li>8. Ask who else has something different to add</li> </ol>
Consider Variables in Partnerships	Examples
<ul style="list-style-type: none"> <li>• Use data to determine how to best assign partners (avoid pairing high performing students with low performing students).</li> <li>• Teach expectations for absences - have substitute partners identified</li> </ul>	<ul style="list-style-type: none"> <li>• ELL proficiency</li> <li>• Communicative competence</li> <li>• Reading and writing proficiency</li> <li>• Attendance</li> <li>• Maturity</li> <li>• Behavioral needs</li> </ul> <p>- Assign partners taking into consideration literacy and language skills. Rank your students numerically from highest (1, 2, 3) to lowest (28, 29, 30). #1 is paired with #16, #2 is paired with 17, #3 is paired with #18, #15 is paired with #30, and so on.</p> <p>- Observe how these partners work together and adjust as needed.</p>
Establish, Teach and Reinforce Expectations	Examples
<ul style="list-style-type: none"> <li>• Foster setting that collaborative interactions are the expectation                             <ul style="list-style-type: none"> <li>○ Model</li> <li>○ Teach</li> <li>○ Provide practice</li> <li>○ Provide a reference for the expectations</li> </ul> </li> </ul>	<u>Use the 4 L's</u> <ol style="list-style-type: none"> <li>1. Look at partner</li> <li>2. Lean toward partner</li> <li>3. Lower your voice</li> <li>4. Listen attentively</li> </ol>
Listening accountability	Examples
Utilize strategies to elicit democratic contributions	<ul style="list-style-type: none"> <li>• Preselect initial reporters from the partnership</li> <li>• Invite contributions from students that have not had the opportunity</li> <li>• Randomly select students by using a name card</li> <li>• Allow for students to report their partner's idea</li> <li>• Cue partners A or B to stand and ask for one of the student's standing to report out</li> </ul>

Adapted from Kate Kinsella, 2015

# Academic Language

(a.k.a. Academic English)

*“Closely related to text complexity and inextricably connected to reading comprehension is a focus on academic vocabulary: words that appear in a variety of content areas (such as ignite and commit) ... their use extends across reading, writing, speaking, and listening.” (corestandards.org, May, 2015)*

*Academic Language is “the oral and written text required to succeed in school that entails deep understanding and communication of the language content within a classroom environment.” (wida.us, 2012).*

Academic language is often described as the more *formal* ‘language of school and testing’ contrasting the *informal* language spoken on the school bus, playground or while students are in the hallways with friends. Like this sentence, and others found in textbooks and on assessments, academic language is more formal in tone and structures and includes words, phrases and sentences that are information dense (Childress, 2013). Academic language is often thought of as just the unfamiliar or technical vocabulary associated with content area lessons, however it is much more than words!

**Academic language instruction should be integrated into the core curriculum and explicitly taught throughout the day. Teachers should be models of academic language all day long.** Students with language deficits do not need to master conversational oral English before they are taught the features of academic English.

Academic Language IS	Academic Language is NOT
<ul style="list-style-type: none"> <li>Used in both writing and speaking</li> <li>Different from social conversations</li> <li>A register of language for specific purposes (text message vs essay)</li> <li>Much broader than a focus on “correct” usage</li> <li>Built around meaning and purpose</li> </ul>	<ul style="list-style-type: none"> <li>Just written</li> <li>Just formal language</li> <li>Just words or specialized vocabulary</li> <li>Just the use of standard (“correct”) forms</li> <li>Just linguistic forms without meaning or purpose</li> </ul>

What makes language sound academic?		
Everyday Language	VS	Academic Language
Casual language spoken with or to <b>peers</b> or adults with whom you feel <b>close</b> <i>“You guys get it?”</i>		Spoken with or by <b>teachers, principals, authority figures</b> <i>“Do you understand what the text is saying?”</i>
More <b>informal</b> with <b>simple</b> grammatical structures <i>I thought the author did a great job making the characters real to me.</i>		More <b>formal</b> with <b>complex</b> grammatical structures <i>The author skillfully captured the essence of each character through vivid descriptions.</i>
<b>Shorter</b> and <b>incomplete</b> sentences <i>“Thanks!”</i>		<b>Longer</b> and <b>complete</b> sentences <i>“I appreciate your help with this.”</i>
<b>Repetition</b> of words <i>“And then...and then...and then”</i>		<b>Variety</b> of words <i>“First...then...finally...consequently”</i>
<b>Less</b> sophisticated vocabulary <i>This shows It’s about</i>		<b>More</b> sophisticated vocabulary <i>Your response demonstrates, illustrates, portrays It concerns, It’s in regards to</i>
Sentences start with <b>conjunctions</b> such as ‘and’, ‘but’ and ‘because’		Sentences start with <b>transitions</b> such as ‘however’ and ‘in addition to’
Actions through <b>verbs</b> <i>solve, fail, discover “Solve the problem.”</i>		Actions turned into <b>nouns</b> to build concepts <i>solution, failure, discovery “Find a solution to the problem.”</i>
<b>Active</b> voice more common <i>John purchased five books.</i>		<b>Passive</b> voice more common. <i>Five books were purchased by John.</i>
<b>Shorter</b> noun <b>phrases</b> <i>The dog</i>		<b>Longer</b> noun <b>phrases</b> <i>The drooling, long-eared Labrador pup</i>
Use of slang <i>“My bad!”</i>		No slang <i>“I made a mistake.”</i>

Adapted from: Jennifer Childress, Assoc. Professor, Art Education, The College of Saint Rose 10/8/13  
<https://communications.madison.k12.wi.us/what-is-academic-language>

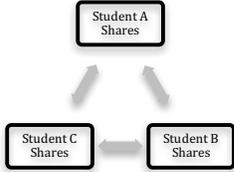
## Structures to Support Academic Language

*Reading and writing float on a sea of talk. ~ James Britton*

All language learners need access to instruction that clearly connects the four domains of language: listening, speaking, reading and writing. This is especially important for English Language Learners (ELLs). While ‘student talk’ takes time that we often do not feel we have enough of, it is an absolute necessity. Developing oracy through **structured and intentionally planned academic discussion** is critical to achieve our goal of high-level literacy.

### Output VS Interaction

Adapted from Oakland Unified School District

	What is it?	Example	Benefit
<b>Output</b>	Students <b>sharing their answer</b> to a prompt.	<p><i>“Share one consequence the Great Depression had on the United States with your group.”</i></p> 	Good practice to support the more challenging task of authentic <b>interaction</b> .
<b>Interaction</b>	Students working together to <b>co-construct meaning</b> . When students interact, they challenge each other, elaborate, clarify responses and build on one another’s ideas.	<p><i>“Decide which consequence of the Great Depression had the most impact on the United States.”</i></p> 	Deeper meaning and concept building and understanding develops

Teacher Responsibilities	Examples
<b>Improve Academic Discussion and Discourse</b>	<p>Student Alternatives to “I don’t know,” “What,” or “Huh?”</p> <ul style="list-style-type: none"> <li>• May I please have more information?</li> <li>• May I have some more time to think?</li> <li>• Would you please repeat the question?</li> <li>• Where can I find information?</li> <li>• May I ask a friend for help?</li> </ul>
<b>Use prompts and questioning to maximize participation and elaboration.</b> (Asking meaningful, challenging, and open-ended questions)	<p>Teacher prompts to increase elaboration</p> <ul style="list-style-type: none"> <li>• Tell us more.</li> <li>• Would you like to ask me a question?</li> <li>• Would you say that again?</li> <li>• Give us another example to help us understand.</li> <li>• I’d like to hear what others are thinking about Joe’s comment.</li> <li>• Take your time. I can see you have more to say about this.</li> <li>• Where can we find that information you just brought up?</li> </ul> <p>Fisher &amp; Frey, Educational Leadership, Speaking Volumes, November 2014, Volume 72 pages 18-23</p>

## Webb's Depth of Knowledge (DOK)

Webb's Depth of Knowledge (DOK) provides a vocabulary and a frame of reference that connects the type of thinking with the complexity of the task. Using DOK levels offers a common language to understand "rigor," or cognitive demand, in assessments, as well as curricular units, lessons, and tasks. Consequently, teachers need to develop the ability to design questions, tasks and classroom assessments for a greater range of cognitive demand. Most often a scaffolded support is needed to help students organize or break down information. All learners K-12 should experience a variety of DOK levels.

### Depth of Knowledge Generalizations:

If there is one correct answer, it is most likely a DOK 1 or DOK 2.

- DOK 1: Either you know it or you don't
- DOK 2: Make connections with known information

If there is more than one answer, requiring supporting evidence, it is a DOK 3 or DOK 4.

- DOK 3: Interpret implied information, provide supporting evidence and reasoning. Explain not just HOW but WHY for each step and decision made
- DOK 4: Includes all of DOK 3 and the use of multiple sources/data/ texts

DOK Level 1: Recall & Reproduction	
Students are to recall or reproduce knowledge and /or skills. Content involves working with facts, terms, details and calculations. Level 1 items have a correct answer with nothing to reason or figure out.	
Teacher Role	Student Role
Questions to direct or focus attention, shows, tells, demonstrates, provides examples, examines, leads, breaks down, defines	Recognizes, responds, remembers, memorizes, restates, absorbs, describes, demonstrates, follows directions, applies routine processes, definitions, and procedures
Possible Task and Products	
<ul style="list-style-type: none"> <li>• Fill in the blank</li> <li>• Quiz</li> <li>• Calculate, compute</li> <li>• Oral reading fluency</li> <li>• Decoding words</li> <li>• Write complete sentences</li> <li>• Document with highlighting/ citing/ annotating sources</li> <li>• Locate and recall quotes</li> <li>• Recite math facts, poems etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Write a list of key words about . . .</li> <li>• Memorize lines</li> <li>• Complete basic calculation tasks (e.g., add, subtract, divide, multiply)</li> <li>• Complete measurement tasks using rulers or thermometers</li> <li>• Read for fact/details or plot</li> <li>• Locate or retrieve information in verbatim form to answer a question</li> </ul>
Potential Questions	
Can you recall _____?	Can you select _____?
When did _____ happen?	How would you write _____?
Who was _____?	What might you include on a list about _____?
How can you recognize _____?	Who discovered _____?
What is _____?	What is the formula for _____?
How can you find the meaning of _____?	Can you identify _____?

*Hess, 2013. Adapted from A Guide for Using Webb's Depth of Knowledge with Common Core State Standards*

## Webb's Depth of Knowledge (DOK)

DOK Level 2: Skill/Concept	
Includes the engagement of mental processing beyond recalling, reproducing or locating an answer. This level generally requires students to compare and contrast, cause and effect, classify, or sort items into meaningful categories, describe or explain relationships, provide examples and non-examples.	
Teacher Role	Student Role
Provides questions to differentiate, infer, or check conceptual understanding, models, organizes,/reorganizes, explores, possible options or connections, provides, examples and non-examples	Solves routine problems/tasks involving multiple decisions points and concepts, constructs models to show relationships, demonstrates use of conceptual knowledge, compiles and organizes, illustrates with examples or models and examines.
Possible Tasks and Products	
<ul style="list-style-type: none"> <li>• Timeline</li> <li>• Number line</li> <li>• Graphic organizer</li> <li>• Science logs</li> <li>• Concept Maps</li> <li>• Captioned Story Board</li> <li>• Use a Venn Diagram that shows how two topics from the same source are the same and different</li> </ul>	<ul style="list-style-type: none"> <li>• Write a summary</li> <li>• Explain a series of steps used to find a solution</li> <li>• Sequence of events using a graphic organizer</li> <li>• Explain the meaning of a concept using words, objects and/or visuals</li> <li>• Complex calculations involving decision points</li> <li>• Conduct, collect, and organize data</li> </ul>
Potential Questions:	
What other way could you solve/find out ___? What is your prediction and why? How would you organize ___ to show ___? Can you explain how ___ affected ___? How would you apply what you learned to develop ___? How would you compare ___ and contrast ___? How would you classify?	What facts are relevant to show ___? How or why would we use ___? What examples or non-examples can we find? What is the relationship between ___ and ___? How would you summarize? How are __ alike and different? What do you notice about ___? How would you estimate ___?

## Webb's Depth of Knowledge (DOK)

DOK Level 3: Strategic Thinking and Reasoning	
<p>Stating reasons and providing relevant supporting evidence are key markers of DOK 3 tasks. The expectation established for tasks at this level require an in-depth integration of conceptual knowledge and multiple skills to reach a solution or produce a final product. DOK 3 tasks focus on in-depth understanding of <b>one</b> text, <b>one</b> data set, <b>one</b> investigation, or <b>one</b> key source.</p>	
Teacher Roles	Student Role
<p>Questions to probe reasoning and underlying thinking, asks open-ended questions, acts as a resource and coach, provides criteria and examples for making judgments and supporting claims. Encourages multiple approaches and solutions and determines when in depth exploration is appropriate.</p>	<p>Uncovers and selects relevant and credible supporting evidence for analyses, critiques, debates, claims and judgments, plans, initiates questions, disputes, argues, tests ideas/solutions, sustains inquiry into topics or deeper problems, applies to the real world.</p>
Possible Tasks and Products:	
<ul style="list-style-type: none"> <li>• Complex graph</li> <li>• Analyze survey results</li> <li>• Multiple paragraph essay or short story</li> <li>• Fact-based argument</li> <li>• Chart and draw conclusions about data sets</li> <li>• Investigation</li> <li>• Drawing conclusions from text or data sets</li> <li>• Generalize from a set of evidence or data</li> <li>• Justification of the solution to a problem</li> <li>• Debate from a given perspective</li> </ul>	<ul style="list-style-type: none"> <li>• Design a questionnaire to gather information</li> <li>• Survey classmates/industry members to find out what they think about a particular topic</li> <li>• Make a flow chart to show the critical stages.</li> <li>• Participate in a discussion that represents different viewpoints</li> <li>• Write an opinion essay</li> <li>• Convince others with evidence</li> <li>• Solve non-routine problems</li> <li>• Interpret information from a complex graph</li> </ul>
Potential Questions	
<p>How is ___ related to ___?</p> <p>What are the possible flaws in ___?</p> <p>What is the theme/lesson-learned ___?</p> <p>How would the moral change if ___?</p> <p>What underlying bias is there ___?</p> <p>What inferences will these facts support ___?</p> <p>How does the author create tension/suspense ___?</p> <p>What is the author's reasoning for ___?</p>	<p>How can you prove that your solution is reasonable?</p> <p>What evidence can you find to support ___?</p> <p>What ideas justify ___?</p> <p>What conclusions can you draw?</p> <p>What information can you draw on to support your reason for ___?</p> <p>How would you ___ to create a different ___?</p> <p>What is the best answer and why?</p> <p>Can you elaborate on your reason and give examples?</p>

## Webb's Depth of Knowledge (DOK)

DOK Level 4: Extended Thinking	
<p>Stating reasons and providing relevant supporting evidence are key markers of DOK 4 tasks. The expectation established for tasks at this level require an in-depth integration of conceptual knowledge and multiple skills to reach a solution or produce a final product. DOK 4 tasks focus on in-depth understanding of <b>multiple</b> texts, <b>multiple</b> data sets, <b>multiple</b> investigations, or <b>multiple</b> key sources.</p>	
Teacher Roles	Student Role
<p>Questions extend thinking and broaden perspectives; facilitates teaming, collaboration and self-evaluation of students.</p>	<p>Designs, takes risks, researches synthesizing multiple sources, collaborates, plans, organizes, modifies, creates concrete tangible products.</p>
Possible Tasks and Products:	
<ul style="list-style-type: none"> <li>• Presentation—using diverse media formats</li> <li>• Research report synthesizing multiple sources</li> <li>• Essay (informational, narrative or opinion) using multiple sources</li> <li>• Multiple data sources synthesized to develop original graphs</li> <li>• Assessment based on application of the content knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• Applying information from more than one discipline to solve non-routine problems in novel or real-world situations.</li> <li>• Tasks that require making multiple strategic and procedural decisions as new information is processed</li> <li>• Tasks that require multiple roles and collaboration with others. (peer revision, editing of a script)</li> <li>• Tasks that draw evidence from multiple sources to support solutions/conclusions</li> </ul>
Potential Questions—all require multiple sources for evidence	
	<p>What changes would you make to solve or address this major issue/problem _____?</p> <p>Can you propose an alternate solution?</p> <p>Do you agree with the actions, outcomes, or decisions?</p> <p>How would you prove or disprove?</p> <p>Can you assess the value or importance of?</p>

**Table 1: Math Descriptors – Applying Depth of Knowledge Levels for Mathematics (Webb, 2002) & NAEP 2002 Mathematics Levels of Complexity (M. Petit, Center for Assessment 2003, K. Hess, Center for Assessment, updated 2006)**

Level 1 Recall	Level 2 Skills/Concepts	Level 3 Strategic Thinking	Level 4 Extended Thinking
<ul style="list-style-type: none"> <li>a. Recall, observe, or recognize a fact, definition, term, or property</li> <li>b. Apply/compute a well-known algorithm (e.g., sum, quotient)</li> <li>c. Apply a formula</li> <li>d. Determine the area or perimeter of rectangles or triangles given a drawing and labels</li> <li>e. Identify a plane or three dimensional figure</li> <li>f. Measure</li> <li>g. Perform a specified or routine procedure (e.g., apply rules for rounding)</li> <li>h. Evaluate an expression</li> <li>i. Solve a one-step word problem</li> <li>j. Retrieve information from a table or graph</li> <li>k. Recall, identify, or make conversions between and among representations or numbers (fractions, decimals, and percents), or within and between customary and metric measures</li> <li>l. Locate numbers on a number line, or points on a coordinate grid</li> <li>m. Solve linear equations</li> <li>n. Represent math relationships in words, pictures, or symbols</li> <li>o. Read, write, and compare decimals in scientific notation</li> </ul>	<ul style="list-style-type: none"> <li>a. Classify plane and three dimensional figures</li> <li>b. Interpret information from a simple graph</li> <li>c. Use models to represent mathematical concepts</li> <li>d. <b>Solve a routine problem</b> requiring multiple steps/decision points, or the application of multiple concepts</li> <li>e. Compare and/or contrast figures or statements</li> <li>f. Construct 2-dimensional patterns for 3-dimensional models, such as cylinders and cones</li> <li>g. Provide justifications for steps in a solution process</li> <li>h. Extend a pattern</li> <li>i. Retrieve information from a table, graph, or figure and use it solve a problem requiring multiple steps</li> <li>j. Translate between tables, graphs, words and symbolic notation</li> <li>k. Make direct translations between problem situations and symbolic notation</li> <li>l. Select a procedure according to criteria and perform it</li> <li>m. Specify and explain relationships between facts, terms, properties, or operations</li> <li>n. Compare, classify, organize, estimate, or order data</li> </ul>	<ul style="list-style-type: none"> <li>a) Interpret information from a complex graph</li> <li>b) Explain thinking when more than one response is possible</li> <li>c) Make and/or justify conjectures</li> <li>d) Use evidence to develop logical arguments for a concept</li> <li>e) Use concepts to solve non-routine problems</li> <li>f) Perform procedure with multiple steps and multiple decision points</li> <li>g) Generalize a pattern</li> <li>h) Describe, compare, and contrast solution methods</li> <li>i) Formulate a mathematical model for a complex situation</li> <li>j) Provide mathematical justifications</li> <li>k) Solve a multiple- step problem and provide support with a mathematical explanation that justifies the answer</li> <li>l) Solve 2-step linear equations/inequalities in one variable over the rational numbers, interpret solution(s) in the original context, and verify reasonableness of results</li> <li>m) Translate between a problem situation and symbolic notation that is not a direct translation</li> <li>n) Formulate an original problem, given a situation</li> <li>o) Analyze the similarities and differences between procedures</li> <li>p) Draw conclusion from observations or data, citing evidence</li> </ul>	<ul style="list-style-type: none"> <li>a) Relate mathematical concepts to other content areas</li> <li>b) Relate mathematical concepts to real-world applications in new situations</li> <li>c) Apply a mathematical model to illuminate a problem, situation</li> <li>d) Conduct a project that specifies a problem, identifies solution paths, solves the problem, and reports results</li> <li>e) Design a mathematical model to inform and solve a practical or abstract situation</li> <li>f) Develop generalizations of the results obtained and the strategies used and apply them to new problem situations</li> <li>g) Apply one approach among many to solve problems</li> <li>h) Apply understanding in a novel way, providing an argument/justification for the application</li> </ul> <p><i>NOTE: Level 4 involves such things as complex restructuring of data or establishing and evaluating criteria to solve problems.</i></p>

**Table 1: Sample Depth-of-Knowledge Level Descriptors for Reading  
(Based on Webb and Wixson, K. Hess, Center for Assessment/NCIEA, 2004)**

<b>Level 1 Recall of Information</b>	<b>Level 2 Basic Reasoning</b>	<b>Level 3 Complex Reasoning</b>	<b>Level 4 Extended Reasoning</b>
<ul style="list-style-type: none"> <li>a. Read words orally in isolation</li> <li>b. Read words orally in connected text</li> <li>c. Read multi-syllabic words</li> <li>d. Locate or recall facts or details explicitly presented in text</li> <li>e. Identify or describe characters, setting, sequence of events</li> <li>f. Use language structure (pre/suffix) or word relationships (synonym/antonym) to determine meaning of words</li> <li>g. Select appropriate words to use in context (e.g., content-specific words, shades of meaning) when intended meaning is clearly evident</li> </ul>	<ul style="list-style-type: none"> <li>a. Use context cues or resources to identify the meaning of unfamiliar words</li> <li>b. Predict a logical outcome based on information in a reading selection</li> <li>c. Make basic inferences or draw basic conclusions about information presented in text (e.g., According to this report, what caused ___?)</li> <li>d. Recognizing appropriate generalizations about text (e.g., possible titles, main ideas)</li> <li>e. Identify and summarize the major events, problem, solution, conflicts in a literary text</li> <li>f. Determine whether a text is fact or fiction</li> <li>g. Distinguish between fact and opinion</li> <li>h. Describe the characteristics or features of various types of text</li> <li>i. Obtain information using text features of informational text (e.g., Table of Contents, sidebar, chart)</li> <li>j. Organize information presented in informational text using mapping, charting, or summarizing</li> <li>k. Locate information to answer questions related to explicit or implicit central ideas in informational texts</li> <li>l. Identify use of literary devices (e.g., imagery, idioms, exaggeration, alliteration, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>a. Explain, generalize, or connect ideas, using supporting evidence from the text or from other sources</li> <li>b. Draw inferences about author's purpose, author's message or theme (explicit or implied)</li> <li>c. Make and support inferences about implied causes and effects</li> <li>d. Describe how word choice, point of view, or bias affects the interpretation of a reading selection</li> <li>e. Summarize or compare information within and across text passages</li> <li>f. Analyze interrelationships among elements of the text (plot, subplots, characters, setting)</li> <li>g. Analyze or interpret use of author's craft (literary devices) to analyze or critique a literary text</li> </ul>	<ul style="list-style-type: none"> <li>a. Compare or analyze multiple works by the same author, including author's craft</li> <li>b. Compare or analyze multiple works from the same time period or from the same genre</li> <li>c. Gather, analyze, organize, and interpret information from multiple (print and non print) sources for the purpose of drafting a reasoned report</li> <li>d. Evaluate the relevancy and accuracy of information from multiple (print and non print) sources (e.g., verifying factual information or assertions with other sources; researching the source of information)</li> </ul>

2 August 2004 Compiled by Karin Hess, National Center for Assessment, Dover, NH  
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**Table 1: Sample Depth-of-Knowledge Level Descriptors for Social Studies**  
**(Based on Webb, Karin Hess, 2005, National Center for Assessment [www.nciea.org](http://www.nciea.org))**

<b>Level 1</b> <b>Recall of Information</b>	<b>Level 2</b> <b>Basic Reasoning</b>	<b>Level 3</b> <b>Complex Reasoning</b>	<b>Level 4</b> <b>Extended Reasoning</b>
<ul style="list-style-type: none"> <li>a. Recall or recognition of: fact, term, concept, trend, generalization, event, or document</li> <li>b. Identify or describe features of places or people</li> <li>c. Identify key figures in a particular context meaning of words</li> <li>d. Describe or explain: who, what, where, when</li> <li>e. Identify specific information contained in maps, charts, tables, graphs, or drawings</li> </ul>	<ul style="list-style-type: none"> <li>a. Describe cause-effect of particular events</li> <li>b. Describe or explain: how (relationships or results), why, points of view, processes, significance, or impact</li> <li>c. Identify patterns in events or behavior</li> <li>d. Categorize events or figures in history into meaningful groups</li> <li>e. Identify and summarize the major events, problem, solution, conflicts</li> <li>f. Distinguish between fact and opinion</li> <li>g. Organize information to show relationships</li> <li>h. Compare and contrast people, events, places, concepts</li> <li>i. Give examples and non-examples to illustrate an idea/concept</li> </ul>	<ul style="list-style-type: none"> <li>a. Explain, generalize, or connect ideas, using supporting evidence from a text/source</li> <li>b. Apply a concept in other contexts</li> <li>c. Make and support inferences about implied causes and effects</li> <li>d. Draw conclusion or form alternative conclusions</li> <li>e. Analyze how changes have affected people or places</li> <li>f. Use concepts to solve problems</li> <li>g. Analyze similarities and differences in issues or problems</li> <li>h. Propose and evaluate solutions</li> <li>i. Recognize and explain misconceptions related to concepts</li> </ul>	<ul style="list-style-type: none"> <li>a. Analyze and explain multiple perspectives or issues within or across time periods, events, or cultures</li> <li>b. Gather, analyze, organize, and synthesize information from multiple (print and non print) sources</li> <li>c. Make predictions with evidence as support</li> <li>d. Plan and develop solutions to problems</li> <li>e. Given a situation/problem, research, define, and describe the situation/problem and provide alternative solutions</li> <li>f. Describe, define, and illustrate common social, historical, economic, or geographical themes and how they interrelate</li> </ul>

Table 1: Detailed Descriptors of Depth-of-Knowledge Levels for Science  
(K. Hess, Center for Assessment, based on Webb, update 2005)

<b>Level 1</b> <b>Recall &amp; Reproduction</b>	<b>Level 2</b> <b>Skills &amp; Concepts</b>	<b>Level 3</b> <b>Strategic Thinking</b>	<b>Level 4</b> <b>Extended Thinking</b>
<ul style="list-style-type: none"> <li>a. Recall or recognize a fact, term, definition, simple procedure (such as one step), or property</li> <li>b. Demonstrate a rote response</li> <li>c. Use a well-known formula</li> <li>d. Represent in words or diagrams a scientific concept or relationship</li> <li>e. Provide or recognize a standard scientific representation for simple phenomenon</li> <li>f. Perform a routine procedure, such as measuring length</li> <li>g. Perform a <b>simple</b> science process or a set procedure (like a recipe)</li> <li>h. Perform a clearly defined set of steps</li> <li>i. Identify, calculate, or measure</li> </ul>	<ul style="list-style-type: none"> <li>a. Specify and explain the relationship between facts, terms, properties, or variables</li> <li>b. Describe and explain examples and non-examples of science concepts</li> <li>c. Select a procedure according to specified criteria and perform it</li> <li>d. Formulate a routine problem given data and conditions</li> <li>e. Organize, represent, and compare data</li> <li>f. Make a decision as to how to approach the problem</li> <li>g. Classify, organize, or estimate</li> <li>h. Compare data</li> <li>i. Make observations</li> <li>j. Interpret information from a simple graph</li> <li>k. Collect and display data</li> </ul>	<ul style="list-style-type: none"> <li>a. Interpret information from a complex graph (such as determining features of the graph or aggregating data in the graph)</li> <li>b. Use reasoning, planning, and evidence</li> <li>c. Explain thinking (beyond a simple explanation or using only a word or two to respond)</li> <li>d. Justify a response</li> <li>e. Identify research questions and design investigations for a scientific problem</li> <li>f. Use concepts to solve non-routine problems/more than one possible answer</li> <li>g. Develop a scientific model for a complex situation</li> <li>h. Form conclusions from experimental or observational data</li> <li>i. Complete a multi-step problem that involves planning and reasoning</li> <li>j. Provide an explanation of a principle</li> <li>k. Justify a response when more than one answer is possible</li> <li>l. Cite evidence and develop a logical argument for concepts</li> <li>m. Conduct a designed investigation</li> <li>n. Research and explain a scientific concept</li> <li>o. Explain phenomena in terms of concepts</li> </ul>	<ul style="list-style-type: none"> <li>a. Select or devise approach among many alternatives to solve problem</li> <li>b. Based on provided data from a complex experiment that is novel to the student, deduct the fundamental relationship between several controlled variables.</li> <li>c. Conduct an investigation, from specifying a problem to designing and carrying out an experiment, to analyzing its data and forming conclusions</li> <li>d. Relate ideas <i>within</i> the content area or <i>among</i> content areas</li> <li>e. Develop generalizations of the results obtained and the strategies used and apply them to new problem situations</li> </ul>

**Hess' Cognitive Rigor Matrix & Curricular Examples: Applying Webb's Depth-of-Knowledge Levels to Bloom's Cognitive Process Dimensions - Reading**

<b>Revised Bloom's Taxonomy</b>	<b>Webb's DOK Level 1 Recall &amp; Reproduction</b>	<b>Webb's DOK Level 2 Skills &amp; Concepts</b>	<b>Webb's DOK Level 3 Strategic Thinking/ Reasoning</b>	<b>Webb's DOK Level 4 Extended Thinking</b>
<b>Remember</b> Retrieve knowledge from long-term memory, recognize, recall, locate, identify	<ul style="list-style-type: none"> <li>Recall, recognize, or locate basic facts, details, events, or ideas explicit in texts</li> <li>Read words orally in connected text with fluency &amp; accuracy</li> <li>Define terms</li> </ul>			
<b>Understand</b> Construct meaning, clarify, paraphrase, represent, translate, illustrate, give examples, classify, categorize, summarize, generalize, infer a logical conclusion), predict, compare/contrast, match like ideas, explain, construct models	<ul style="list-style-type: none"> <li>Identify or describe literary elements (characters, setting, sequence, etc.)</li> <li>Select appropriate words when intended meaning/definition is clearly evident</li> <li>Describe/explain who, what, where, when, or how</li> </ul>	<ul style="list-style-type: none"> <li>Specify, explain, show relationships; explain why, cause-effect</li> <li>Give non-examples/examples</li> <li>Summarize results, concepts, ideas</li> <li>Make basic inferences or logical predictions from data or texts</li> <li>Identify main ideas or accurate generalizations of texts</li> <li>Locate information to support explicit-implicit central ideas</li> </ul>	<ul style="list-style-type: none"> <li>Explain, generalize, or connect ideas using supporting evidence (quote, example, text reference)</li> <li>Identify/ make inferences about explicit or implicit themes</li> <li>Describe how word choice, point of view, or bias may affect the readers' interpretation of a text</li> </ul>	<ul style="list-style-type: none"> <li>Explain how concepts or ideas specifically relate to <i>other</i> content domains or concepts</li> <li>Develop generalizations of the results obtained or strategies used and apply them to new problem situations</li> </ul>
<b>Apply</b> Carry out or use a procedure in a given situation; carry out (apply to a familiar task), or use (apply) to an unfamiliar task	<ul style="list-style-type: none"> <li>Use language structure (pre/suffix) or word relationships (synonym/antonym) to determine meaning of words</li> </ul>	<ul style="list-style-type: none"> <li>Use context to identify the meaning of words/phrases</li> <li>Obtain and interpret information using text features</li> </ul>	<ul style="list-style-type: none"> <li>Apply a concept in a new context</li> </ul>	<ul style="list-style-type: none"> <li>Illustrate how multiple themes (historical, geographic, social) may be interrelated</li> </ul>
<b>Analyze</b> Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct (e.g., for bias or point of view)	<ul style="list-style-type: none"> <li>Identify whether specific information is contained in graphic representations (e.g., map, chart, table, graph, T-chart, diagram) or text features (e.g., headings, subheadings, captions)</li> </ul>	<ul style="list-style-type: none"> <li>Categorize/compare literary elements, terms, facts, details, events</li> <li>Identify use of literary devices</li> <li>Analyze format, organization, &amp; internal text structure (signal words, transitions, semantic cues) of different texts</li> <li>Distinguish: relevant-irrelevant information; fact/opinion</li> <li>Identify characteristic text features; distinguish between texts, genres</li> </ul>	<ul style="list-style-type: none"> <li>Analyze information within data sets or texts</li> <li>Analyze interrelationships among concepts, issues, problems</li> <li>Analyze or interpret author's craft (literary devices, viewpoint, or potential bias) to critique a text</li> <li>Use reasoning, planning, and evidence to support inferences</li> </ul>	<ul style="list-style-type: none"> <li>Analyze multiple sources of evidence, or multiple works by the same author, or across genres, time periods, themes</li> <li>Analyze complex/abstract themes, perspectives, concepts</li> <li>Gather, analyze, and organize multiple information sources</li> <li>Analyze discourse styles</li> </ul>
<b>Evaluate</b> Make judgments based on criteria, check, detect inconsistencies or fallacies, judge, critique			<ul style="list-style-type: none"> <li>Cite evidence and develop a logical argument for conjectures</li> <li>Describe, compare, and contrast solution methods</li> <li>Verify reasonableness of results</li> <li>Critique conclusions drawn</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate relevancy, accuracy, &amp; completeness of information from multiple sources</li> <li>Draw &amp; justify conclusions</li> <li>Apply understanding in a novel way, provide argument or justification for the application</li> </ul>
<b>Create</b> Reorganize elements into new patterns/structures, generate, hypothesize, design, plan, produce		<ul style="list-style-type: none"> <li>Generate conjectures or hypotheses based on observations or prior knowledge and experience</li> </ul>	<ul style="list-style-type: none"> <li>Synthesize information within one source or text</li> <li>Develop a complex model for a given situation</li> <li>Develop an alternative solution</li> </ul>	<ul style="list-style-type: none"> <li>Synthesize information across multiple sources or texts</li> <li>Articulate a new voice, alternate theme, new knowledge or perspective</li> </ul>

**Hess' Cognitive Rigor Matrix & Curricular Examples:** Applying Webb's Depth-of-Knowledge Levels to Bloom's Cognitive Process Dimensions - *Writing*

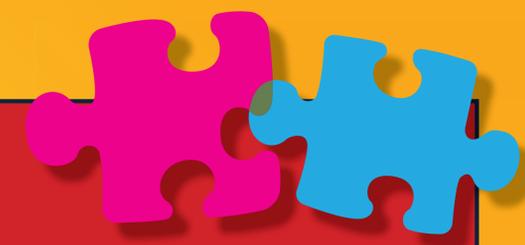
<b>Revised Bloom's Taxonomy</b>	<b>Webb's DOK Level 1 Recall &amp; Reproduction</b>	<b>Webb's DOK Level 2 Skills &amp; Concepts</b>	<b>Webb's DOK Level 3 Strategic Thinking/ Reasoning</b>	<b>Webb's DOK Level 4 Extended Thinking</b>
<b>Remember</b> Retrieve knowledge from long-term memory, recognize, recall, locate, identify				
<b>Understand</b> Construct meaning, clarify, paraphrase, represent, translate, illustrate, give examples, classify, categorize, summarize, generalize, infer a logical conclusion), predict, compare/contrast, match like ideas, explain, construct models	<ul style="list-style-type: none"> <li>○ Describe or define facts, details, terms</li> <li>○ Select appropriate words to use when intended meaning/definition is clearly evident</li> <li>○ Write simple sentences</li> </ul>	<ul style="list-style-type: none"> <li>○ Specify, explain, show relationships; explain why, cause-effect</li> <li>○ Give non-examples/examples</li> <li>○ Take notes; organize ideas/data</li> <li>○ Summarize results, concepts, ideas</li> <li>○ Identify main ideas or accurate generalizations of texts</li> </ul>	<ul style="list-style-type: none"> <li>○ Explain, generalize, or connect ideas using supporting evidence (quote, example, text reference)</li> <li>○ Write multi-paragraph composition for specific purpose, focus, voice, tone, &amp; audience</li> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Explain how concepts or ideas specifically relate to <i>other</i> content domains or concepts</li> <li>○ Develop generalizations of the results obtained or strategies used and apply them to new problem situations</li> </ul>
<b>Apply</b> Carry out or use a procedure in a given situation; carry out (apply to a familiar task), or use (apply) to an unfamiliar task	<ul style="list-style-type: none"> <li>○ Apply rules or use resources to edit specific spelling, grammar, punctuation, conventions, word use</li> <li>○ Apply basic formats for documenting sources</li> </ul>	<ul style="list-style-type: none"> <li>○ Use context to identify the meaning of words/phrases</li> <li>○ Obtain and interpret information using text features</li> <li>○ Develop a text that may be limited to one paragraph</li> <li>○ Apply simple organizational structures (paragraph, sentence types) in writing</li> </ul>	<ul style="list-style-type: none"> <li>○ Revise final draft for meaning or progression of ideas</li> <li>○ Apply internal consistency of text organization and structure to composing a full composition</li> <li>○ Apply a concept in a new context</li> <li>○ Apply word choice, point of view, style to impact readers' interpretation of a text</li> </ul>	<ul style="list-style-type: none"> <li>○ Select or devise an approach among many alternatives to research a novel problem</li> <li>○ Illustrate how multiple themes (historical, geographic, social) may be interrelated</li> </ul>
<b>Analyze</b> Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct (e.g., for bias, point of view)	<ul style="list-style-type: none"> <li>○ Decide which text structure is appropriate to audience and purpose</li> </ul>	<ul style="list-style-type: none"> <li>○ Compare literary elements, terms, facts, details, events</li> <li>○ Analyze format, organization, &amp; internal text structure (signal words, transitions, semantic cues) of different texts</li> <li>○ Distinguish: relevant-irrelevant information; fact/opinion</li> </ul>	<ul style="list-style-type: none"> <li>○ Analyze interrelationships among concepts, issues, problems</li> <li>○ Apply tools of author's craft (literary devices, viewpoint, or potential dialogue) with intent</li> <li>○ Use reasoning, planning, and evidence to support inferences made</li> </ul>	<ul style="list-style-type: none"> <li>○ Analyze multiple sources of evidence, or multiple works by the same author, or across genres, or time periods</li> <li>○ Analyze complex/abstract themes, perspectives, concepts</li> <li>○ Gather, analyze, and organize multiple information sources</li> </ul>
<b>Evaluate</b> Make judgments based on criteria, check, detect inconsistencies or fallacies, judge, critique			<ul style="list-style-type: none"> <li>○ Cite evidence and develop a logical argument for conjectures</li> <li>○ Describe, compare, and contrast solution methods</li> <li>○ Verify reasonableness of results</li> <li>○ Justify or critique conclusions</li> </ul>	<ul style="list-style-type: none"> <li>○ Evaluate relevancy, accuracy, &amp; completeness of information from multiple sources</li> <li>○ Draw &amp; justify conclusions</li> <li>○ Apply understanding in a novel way, provide argument or justification for the application</li> </ul>
<b>Create</b> Reorganize elements into new patterns/structures, generate, hypothesize, design, plan, produce	<ul style="list-style-type: none"> <li>○ Brainstorm ideas, concepts, problems, or perspectives related to a topic or concept</li> </ul>	<ul style="list-style-type: none"> <li>○ Generate conjectures or hypotheses based on observations or prior knowledge and experience</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop a complex model for a given situation</li> <li>○ Develop an alternative solution</li> </ul>	<ul style="list-style-type: none"> <li>○ Synthesize information across multiple sources or texts</li> <li>○ Articulate a new voice, alternate theme, new knowledge or perspective</li> </ul>

**Hess' Cognitive Rigor Matrix & Curricular Examples: Applying Webb's Depth-of-Knowledge Levels to Bloom's Cognitive Process Dimensions – *Math/Science***

<b>Revised Bloom's Taxonomy</b>	<b>Webb's DOK Level 1 Recall &amp; Reproduction</b>	<b>Webb's DOK Level 2 Skills &amp; Concepts</b>	<b>Webb's DOK Level 3 Strategic Thinking/ Reasoning</b>	<b>Webb's DOK Level 4 Extended Thinking</b>
<b>Remember</b> Retrieve knowledge from long-term memory, recognize, recall, locate, identify	<ul style="list-style-type: none"> <li>Recall, observe, &amp; recognize facts, principles, properties</li> <li>Recall/ identify conversions among representations or numbers (e.g., customary and metric measures)</li> </ul>			
<b>Understand</b> Construct meaning, clarify, paraphrase, represent, translate, illustrate, give examples, classify, categorize, summarize, generalize, infer a logical conclusion (such as from examples given), predict, compare/contrast, match like ideas, explain, construct models	<ul style="list-style-type: none"> <li>Evaluate an expression</li> <li>Locate points on a grid or number on number line</li> <li>Solve a one-step problem</li> <li>Represent math relationships in words, pictures, or symbols</li> <li>Read, write, compare decimals in scientific notation</li> </ul>	<ul style="list-style-type: none"> <li>Specify and explain relationships (e.g., non-examples/examples; cause-effect)</li> <li>Make and record observations</li> <li>Explain steps followed</li> <li>Summarize results or concepts</li> <li>Make basic inferences or logical predictions from data/observations</li> <li>Use models /diagrams to represent or explain mathematical concepts</li> <li>Make and explain estimates</li> </ul>	<ul style="list-style-type: none"> <li>Use concepts to solve <u>non-routine</u> problems</li> <li>Explain, generalize, or connect ideas <u>using supporting evidence</u></li> <li>Make <u>and justify</u> conjectures</li> <li>Explain thinking when more than one response is possible</li> <li>Explain phenomena in terms of concepts</li> </ul>	<ul style="list-style-type: none"> <li>Relate mathematical or scientific concepts to other content areas, other domains, or other concepts</li> <li>Develop generalizations of the results obtained and the strategies used (from investigation or readings) and apply them to new problem situations</li> </ul>
<b>Apply</b> Carry out or use a procedure in a given situation; carry out (apply to a familiar task), or use (apply) to an unfamiliar task	<ul style="list-style-type: none"> <li>Follow simple procedures (recipe-type directions)</li> <li>Calculate, measure, apply a rule (e.g., rounding)</li> <li>Apply algorithm or formula (e.g., area, perimeter)</li> <li>Solve linear equations</li> <li>Make conversions among representations or numbers, or within and between customary and metric measures</li> </ul>	<ul style="list-style-type: none"> <li>Select a procedure according to criteria and perform it</li> <li>Solve routine problem applying multiple concepts or decision points</li> <li>Retrieve information from a table, graph, or figure and use it solve a problem requiring multiple steps</li> <li>Translate between tables, graphs, words, and symbolic notations (e.g., graph data from a table)</li> <li>Construct models given criteria</li> </ul>	<ul style="list-style-type: none"> <li>Design investigation for a specific purpose or research question</li> <li>Conduct a designed investigation</li> <li>Use concepts to solve non-routine problems</li> <li><u>Use &amp; show reasoning, planning, and evidence</u></li> <li>Translate between problem &amp; symbolic notation when not a direct translation</li> </ul>	<ul style="list-style-type: none"> <li>Select or devise approach among many alternatives to solve a problem</li> <li>Conduct a project that specifies a problem, identifies solution paths, solves the problem, and reports results</li> </ul>
<b>Analyze</b> Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct	<ul style="list-style-type: none"> <li>Retrieve information from a table or graph to answer a question</li> <li>Identify whether specific information is contained in graphic representations (e.g., table, graph, T-chart, diagram)</li> <li>Identify a pattern/trend</li> </ul>	<ul style="list-style-type: none"> <li>Categorize, classify materials, data, figures based on characteristics</li> <li>Organize or order data</li> <li>Compare/ contrast figures or data</li> <li>Select appropriate graph and organize &amp; display data</li> <li>Interpret data from a simple graph</li> <li>Extend a pattern</li> </ul>	<ul style="list-style-type: none"> <li>Compare information within or across data sets or texts</li> <li>Analyze and <u>draw conclusions from data, citing evidence</u></li> <li>Generalize a pattern</li> <li>Interpret data from complex graph</li> <li>Analyze similarities/differences between procedures or solutions</li> </ul>	<ul style="list-style-type: none"> <li>Analyze multiple sources of evidence</li> <li>analyze complex/abstract themes</li> <li>Gather, analyze, and evaluate information</li> </ul>
<b>Evaluate</b> Make judgments based on criteria, check, detect inconsistencies or fallacies, judge, critique			<ul style="list-style-type: none"> <li><u>Cite evidence and develop a logical argument</u> for concepts or solutions</li> <li>Describe, compare, and contrast solution methods</li> <li><u>Verify reasonableness of results</u></li> </ul>	<ul style="list-style-type: none"> <li>Gather, analyze, &amp; evaluate information to draw conclusions</li> <li>Apply understanding in a novel way, provide argument or justification for the application</li> </ul>
<b>Create</b> Reorganize elements into new patterns/structures, generate, hypothesize, design, plan, construct, produce	<ul style="list-style-type: none"> <li>Brainstorm ideas, concepts, or perspectives related to a topic</li> </ul>	<ul style="list-style-type: none"> <li>Generate conjectures or hypotheses based on observations or prior knowledge and experience</li> </ul>	<ul style="list-style-type: none"> <li>Synthesize information within one data set, source, or text</li> <li>Formulate an original problem given a situation</li> <li>Develop a scientific/mathematical model for a complex situation</li> </ul>	<ul style="list-style-type: none"> <li>Synthesize information across multiple sources or texts</li> <li>Design a mathematical model to inform and solve a practical or abstract situation</li> </ul>



# I CAN...go deeper and rock the rigor!



Revised Bloom's Taxonomy	1 Webb's DOK Level 1 Recall & Reproduction	2 Webb's DOK Level 2 Skills & Concepts	3 Webb's DOK Level 3 Strategic Thinking/Reasoning	4 Webb's DOK Level 4 Extended Thinking
<b>Remember</b> Retrieve knowledge from long-term memory, recognize, recall, locate, identify	<ul style="list-style-type: none"> <li>I can... find or recall facts, details, and definitions in a text or on a website.</li> <li>I can... recall math facts.</li> </ul>			
<b>Understand</b> Construct meaning, clarify, paraphrase, represent, translate, illustrate, give examples, classify, categorize, summarize, generalize, infer a logical conclusion, predict, observe, compare/contrast, match like ideas, explain, construct models	<ul style="list-style-type: none"> <li>I can... explain who, what, where, when, or how after reading, listening to, or viewing.</li> <li>I can show relationships using numbers, symbols, and pictures.</li> </ul>	<ul style="list-style-type: none"> <li>I can ... summarize the sequence of events or state the main idea.</li> <li>I can... provide examples and non-examples to show I understand a concept.</li> <li>I can... show how two ideas connect.</li> <li>I can...specify and explain relationships.</li> </ul>	<ul style="list-style-type: none"> <li>I can ...identify the lesson learned or theme and use evidence from the text to support my interpretation.</li> <li>I can... solve a problem one way and explain my reasoning using another strategy.</li> <li>I can...develop a presentation for a specific purpose and audience.</li> </ul>	<ul style="list-style-type: none"> <li>I can... use examples to explain how ideas in one text specifically connect to another text.</li> <li>I can... write a report using more than one resource or more than one concept.</li> </ul>
<b>Apply</b> Carry out or use a procedure in a given situation; carry out (apply to a familiar task), or use (transfer) to an unfamiliar or non-routine task	<ul style="list-style-type: none"> <li>I can... apply spelling rules to edit my work.</li> <li>I can...calculate, measure, or follow a rule – like rounding a number or finding the average.</li> <li>I can... solve an equation.</li> </ul>	<ul style="list-style-type: none"> <li>I can...locate and use data in a table or graph to solve a word problem.</li> <li>I can... use the clues in a text to figure out what a new word means.</li> <li>I can... use captions and graphics to find more information.</li> </ul>	<ul style="list-style-type: none"> <li>I can...plan how I would collect and analyze data to answer a question.</li> <li>I can...revise the words and visuals in an advertisement for a new audience.</li> </ul>	<ul style="list-style-type: none"> <li>I can...identify a real-world problem, and plan and conduct an investigation to show how the problem could be solved.</li> <li>I can... use what I learned to find other solutions.</li> </ul>
<b>Analyze</b> Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct (e.g., for bias, point of view, approach/strategy used)	<ul style="list-style-type: none"> <li>I can ... find and record data from a weather map.</li> <li>I can... identify a pattern or trend.</li> <li>I can... list the best key words to use for an Internet search.</li> </ul>	<ul style="list-style-type: none"> <li>I can ... compare and contrast weather data from two regions or two states.</li> <li>I can ... compare two characters in a story.</li> <li>I can... sort objects by different features.</li> <li>I can...extend a pattern.</li> <li>I can...interpret a simple graph or visual.</li> </ul>	<ul style="list-style-type: none"> <li>I can...figure out if there is conflicting or confusing information in one text and explain my reasoning.</li> <li>I can...interpret a political cartoon and use factual information to support my reasoning.</li> <li>I can...generalize a pattern.</li> </ul>	<ul style="list-style-type: none"> <li>I can ... compare styles or themes in two books by the same author.</li> <li>I can...gather and analyze information from many sources to find the best evidence to support an opinion.</li> <li>I can... break down opposing claims or arguments.</li> </ul>
<b>Evaluate</b> Make judgments based on criteria, check, detect inconsistencies or fallacies, judge, critique	<ul style="list-style-type: none"> <li>I can...complain that the weather is not good for skiing.</li> <li>I can...state that I like or don't like something and not back up my opinion.</li> <li>I can...state a claim that something is true or not true without giving any justification.</li> </ul>		<ul style="list-style-type: none"> <li>I can ...explain why I'm planning my ski vacation in Utah, using evidence from historical weather patterns.</li> <li>I can... find possible flaws in an experiment or a solution.</li> </ul>	<ul style="list-style-type: none"> <li>I can... use historical weather data from multiple places to choose the best location for my next ski vacation.</li> </ul>
<b>Create</b> Reorganize elements into new patterns/structures/ or schemas, generate, hypothesize, design, plan, produce	<ul style="list-style-type: none"> <li>I can...brainstorm what I know - ideas, concepts, or perspectives on a topic</li> </ul>	<ul style="list-style-type: none"> <li>I can ... use facts, observations, and what I know to make a prediction or state an hypothesis.</li> <li>I can... tell you WHY a claim or opinion might be believable.</li> </ul>	<ul style="list-style-type: none"> <li>I can ... re-present an author's idea in my own way.</li> <li>I can ... develop a model or a media message that shows a stated perspective or a new solution.</li> <li>I can...justify a claim with hard evidence.</li> </ul>	<ul style="list-style-type: none"> <li>I can...write a sequel to a story, with a logical story line for the main character</li> <li>I can...use historical facts to develop believable historical fiction.</li> <li>I can...use historical weather data from multiple sources to choose the best location for my next ski vacation.</li> </ul>



## The Cornerstone of WIDA's Standards: Guiding Principles of Language Development

### **1. Students' languages and cultures are valuable resources to be tapped and incorporated into schooling.**

Escamilla & Hopewell (2010); Goldenberg & Coleman (2010); Garcia (2005); Freeman, Freeman, & Mercuri (2002); González, Moll, & Amanti (2005); Scarcella (1990)

### **2. Students' home, school, and community experiences influence their language development.**

Nieto (2008); Payne (2003); Collier (1995); California State Department of Education (1986)

### **3. Students draw on their metacognitive, metalinguistic, and metacultural awareness to develop proficiency in additional languages.**

Cloud, Genesee, & Hamayan (2009); Bialystok (2007); Chamot & O'Malley (1994); Bialystok (1991); Cummins (1978)

### **4. Students' academic language development in their native language facilitates their academic language development in English. Conversely, students' academic language development in English informs their academic language development in their native language.**

Escamilla & Hopewell (2010); Gottlieb, Katz, & Ernst-Slavit (2009); Tabors (2008); Espinosa (2009); August & Shanahan (2006); Genesee, Lindholm-Leary, Saunders, & Christian (2006); Snow (2005); Genesee, Paradis, & Crago (2004); August & Shanahan (2006); Riches & Genesee (2006); Gottlieb (2003); Schleppegrell & Colombi (2002); Lindholm & Molina (2000); Pardo & Tinajero (1993)

### **5. Students learn language and culture through meaningful use and interaction.**

Brown (2007); Garcia & Hamayan, (2006); Garcia (2005); Kramsch (2003); Diaz-Rico & Weed (1995); Halliday & Hasan (1989); Damen (1987)

### **6. Students use language in functional and communicative ways that vary according to context.**

Schleppegrell (2004); Halliday (1976); Finocchiaro & Brumfit (1983)

### **7. Students develop language proficiency in listening, speaking, reading, and writing interdependently, but at different rates and in different ways.**

Gottlieb & Hamayan (2007); Spolsky (1989); Vygotsky (1962)

### **8. Students' development of academic language and academic content knowledge are inter-related processes.**

Gibbons (2009); Collier & Thomas (2009); Gottlieb, Katz, & Ernst-Slavit (2009); Echevarria, Vogt, & Short (2008); Zwiers (2008); Gee (2007); Bailey (2007); Mohan (1986)

### **9. Students' development of social, instructional, and academic language, a complex and long-term process, is the foundation for their success in school.**

Anstrom, et.al. (2010); Francis, Lesaux, Kieffer, & Rivera (2006); Bailey & Butler (2002); Cummins (1979)

### **10. Students' access to instructional tasks requiring complex thinking is enhanced when linguistic complexity and instructional support match their levels of language proficiency.**

Gottlieb, Katz, & Ernst-Slavit (2009); Gibbons (2009, 2002); Vygotsky (1962)



## Can Do Descriptors: Grade Level Cluster PreK-K

For the given level of English language proficiency and with visual, graphic, or interactive support through Level 4, English language learners can process or produce the **language** needed to:

	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	Level 6 - Reaching
LISTENING	<ul style="list-style-type: none"> <li>Match oral language to classroom and everyday objects</li> <li>Point to stated pictures in context</li> <li>Respond non-verbally to oral commands or statements (e.g., through physical movement)</li> <li>Find familiar people and places named orally</li> </ul>	<ul style="list-style-type: none"> <li>Sort pictures or objects according to oral instructions</li> <li>Match pictures, objects or movements to oral descriptions</li> <li>Follow one-step oral directions (e.g., “stand up”; “sit down”)</li> <li>Identify simple patterns described orally</li> <li>Respond with gestures to songs, chants, or stories modeled by teachers</li> </ul>	<ul style="list-style-type: none"> <li>Follow two-step oral directions, one step at a time</li> <li>Draw pictures in response to oral instructions</li> <li>Respond non-verbally to confirm or deny facts (e.g., thumbs up, thumbs down)</li> <li>Act out songs and stories using gestures</li> </ul>	<ul style="list-style-type: none"> <li>Find pictures that match oral descriptions</li> <li>Follow oral directions and compare with visual or nonverbal models (e.g., “Draw a circle under the line.”)</li> <li>Distinguish between what happens first and next in oral activities or readings</li> <li>Role play in response to stories read aloud</li> </ul>	<ul style="list-style-type: none"> <li>Order pictures of events according to sequential language</li> <li>Arrange objects or pictures according to descriptive oral discourse</li> <li>Identify pictures/realia associated with grade-level academic concepts from oral descriptions</li> <li>Make patterns from real objects or pictures based on detailed oral descriptions</li> </ul>	
SPEAKING	<ul style="list-style-type: none"> <li>Identify people or objects in illustrated short stories</li> <li>Repeat words, simple phrases</li> <li>Answer yes/no questions about personal information</li> <li>Name classroom and everyday objects</li> </ul>	<ul style="list-style-type: none"> <li>Restate some facts from illustrated short stories</li> <li>Describe pictures, classroom objects or familiar people using simple phrases</li> <li>Answer questions with one or two words (e.g., “Where is Sonia?”)</li> <li>Complete phrases in rhymes, songs, and chants</li> </ul>	<ul style="list-style-type: none"> <li>Retell short narrative stories through pictures</li> <li>Repeat sentences from rhymes and patterned stories</li> <li>Make predictions (e.g. “What will happen next?”)</li> <li>Answer explicit questions from stories read aloud (e.g., who, what, or where)</li> </ul>	<ul style="list-style-type: none"> <li>Retell narrative stories through pictures with emerging detail</li> <li>Sing repetitive songs and chants independently</li> <li>Compare attributes of real objects (e.g., size, shape, color)</li> <li>Indicate spatial relations of real-life objects using phrases or short sentences</li> </ul>	<ul style="list-style-type: none"> <li>Tell original stories with emerging detail</li> <li>Explain situations (e.g., involving feelings)</li> <li>Offer personal opinions</li> <li>Express likes, dislikes, or preferences with reasons</li> </ul>	

The Can Do Descriptors work in conjunction with the WIDA Performance Definitions of the English language proficiency standards. The Performance Definitions use three criteria (1. linguistic complexity; 2. vocabulary usage; and 3. language control) to describe the increasing quality and quantity of students’ language processing and use across the levels of language proficiency.

## Can Do Descriptors: Grade Level Cluster PreK-K

For the given level of English language proficiency and with visual, graphic, or interactive support through Level 4, English language learners can process or produce the **language** needed to:

	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	Level 6 - Reaching
READING	<ul style="list-style-type: none"> <li>Match icons and symbols to corresponding pictures</li> <li>Identify name in print</li> <li>Find matching words or pictures</li> <li>Find labeled real-life classroom objects</li> </ul>	<ul style="list-style-type: none"> <li>Match examples of the same form of print</li> <li>Distinguish between same and different forms of print (e.g., single letters and symbols)</li> <li>Demonstrate concepts of print (e.g., left to right movement, beginning/end, or top/bottom of page)</li> <li>Match labeled pictures to those in illustrated scenes</li> </ul>	<ul style="list-style-type: none"> <li>Use pictures to identify words</li> <li>Classify visuals according to labels or icons (e.g., animals v. plants)</li> <li>Demonstrate concepts of print (e.g., title, author, illustrator)</li> <li>Sort labeled pictures by attribute (e.g., number, initial sound)</li> </ul>	<ul style="list-style-type: none"> <li>Identify some high-frequency words in context</li> <li>Order a series of labeled pictures described orally to tell stories</li> <li>Match pictures to phrases/short sentences</li> <li>Classify labeled pictures by two attributes (e.g., size and color)</li> </ul>	<ul style="list-style-type: none"> <li>Find school-related vocabulary items</li> <li>Differentiate between letters, words, and sentences</li> <li>String words together to make short sentences</li> <li>Indicate features of words, phrases, or sentences that are the same and different</li> </ul>	
WRITING	<ul style="list-style-type: none"> <li>Draw pictures and scribble</li> <li>Circle or underline pictures, symbols, and numbers</li> <li>Trace figures and letters</li> <li>Make symbols, figures or letters from models and realia (e.g., straws, clay)</li> </ul>	<ul style="list-style-type: none"> <li>Connect oral language to print (e.g., language experience)</li> <li>Reproduce letters, symbols, and numbers from models in context</li> <li>Copy icons of familiar environmental print</li> <li>Draw objects from models and label with letters</li> </ul>	<ul style="list-style-type: none"> <li>Communicate using letters, symbols, and numbers in context</li> <li>Make illustrated “notes” and cards with distinct letter combinations</li> <li>Make connections between speech and writing</li> <li>Reproduce familiar words from labeled models or illustrations</li> </ul>	<ul style="list-style-type: none"> <li>Produce symbols and strings of letters associated with pictures</li> <li>Draw pictures and use words to tell a story</li> <li>Label familiar people and objects from models</li> <li>Produce familiar words/phrases from environmental print and illustrated text</li> </ul>	<ul style="list-style-type: none"> <li>Create content-based representations through pictures and words</li> <li>Make “story books” with drawings and words</li> <li>Produce words/phrases independently</li> <li>Relate everyday experiences using phrases/short sentences</li> </ul>	

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## Can Do Descriptors: Grade Level Cluster 1-2

For the given level of English language proficiency and with visual, graphic, or interactive support through Level 4, English language learners can process or produce the **language** needed to:

	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	Level 6 - Reaching
LISTENING	<ul style="list-style-type: none"> <li>Follow modeled, one-step oral directions (e.g., “Find a pencil.”)</li> <li>Identify pictures of everyday objects as stated orally (e.g., in books)</li> <li>Point to real-life objects reflective of content-related vocabulary or oral statements</li> <li>Mimic gestures or movement associated with statements (e.g., “This is my left hand.”)</li> </ul>	<ul style="list-style-type: none"> <li>Match oral reading of stories to illustrations</li> <li>Carry out two- to three-step oral commands (e.g., “Take out your science book. Now turn to page 25.”)</li> <li>Sequence a series of oral statements using real objects or pictures</li> <li>Locate objects described orally</li> </ul>	<ul style="list-style-type: none"> <li>Follow modeled multi-step oral directions</li> <li>Sequence pictures of stories read aloud (e.g., beginning, middle, and end)</li> <li>Match people with jobs or objects with functions based on oral descriptions</li> <li>Classify objects according to descriptive oral statements</li> </ul>	<ul style="list-style-type: none"> <li>Compare/contrast objects according to physical attributes (e.g., size, shape, color) based on oral information</li> <li>Find details in illustrated, narrative, or expository text read aloud</li> <li>Identify illustrated activities from oral descriptions</li> <li>Locate objects, figures, places based on visuals and detailed oral descriptions</li> </ul>	<ul style="list-style-type: none"> <li>Use context clues to gain meaning from grade-level text read orally</li> <li>Apply ideas from oral discussions to new situations</li> <li>Interpret information from oral reading of narrative or expository text</li> <li>Identify ideas/concepts expressed with grade-level content-specific language</li> </ul>	
SPEAKING	<ul style="list-style-type: none"> <li>Repeat simple words, phrases, and memorized chunks of language</li> <li>Respond to visually-supported (e.g., calendar) questions of academic content with one word or phrase</li> <li>Identify and name everyday objects</li> <li>Participate in whole group chants and songs</li> </ul>	<ul style="list-style-type: none"> <li>Use first language to fill in gaps in oral English (code switch)</li> <li>Repeat facts or statements</li> <li>Describe what people do from action pictures (e.g., jobs of community workers)</li> <li>Compare real-life objects (e.g., “smaller,” “biggest”)</li> </ul>	<ul style="list-style-type: none"> <li>Ask questions of a social nature</li> <li>Express feelings (e.g., “I’m happy because...”)</li> <li>Retell simple stories from picture cues</li> <li>Sort and explain grouping of objects (e.g., sink v. float)</li> <li>Make predictions or hypotheses</li> <li>Distinguish features of content-based phenomena (e.g., caterpillar, butterfly)</li> </ul>	<ul style="list-style-type: none"> <li>Ask questions for social and academic purposes</li> <li>Participate in class discussions on familiar social and academic topics</li> <li>Retell stories with details</li> <li>Sequence stories with transitions</li> </ul>	<ul style="list-style-type: none"> <li>Use academic vocabulary in class discussions</li> <li>Express and support ideas with examples</li> <li>Give oral presentations on content-based topics approaching grade level</li> <li>Initiate conversation with peers and teachers</li> </ul>	

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## Can Do Descriptors: Grade Level Cluster 1-2

For the given level of English language proficiency and with visual, graphic, or interactive support through Level 4, English language learners can process or produce the **language** needed to:

	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	Level 6 - Reaching
READING	<ul style="list-style-type: none"> <li>Identify symbols, icons, and environmental print</li> <li>Connect print to visuals</li> <li>Match real-life familiar objects to labels</li> <li>Follow directions using diagrams or pictures</li> </ul>	<ul style="list-style-type: none"> <li>Search for pictures associated with word patterns</li> <li>Identify and interpret pre-taught labeled diagrams</li> <li>Match voice to print by pointing to icons, letters, or illustrated words</li> <li>Sort words into word families</li> </ul>	<ul style="list-style-type: none"> <li>Make text-to-self connections with prompting</li> <li>Select titles to match a series of pictures</li> <li>Sort illustrated content words into categories</li> <li>Match phrases and sentences to pictures</li> </ul>	<ul style="list-style-type: none"> <li>Put words in order to form sentences</li> <li>Identify basic elements of fictional stories (e.g., title, setting, characters)</li> <li>Follow sentence-level directions</li> <li>Distinguish between general and specific language (e.g., flower v. rose) in context</li> </ul>	<ul style="list-style-type: none"> <li>Begin using features of non-fiction text to aid comprehension</li> <li>Use learning strategies (e.g., context clues)</li> <li>Identify main ideas</li> <li>Match figurative language to illustrations (e.g., “as big as a house”)</li> </ul>	
WRITING	<ul style="list-style-type: none"> <li>Copy written language</li> <li>Use first language (L1, when L1 is a medium of instruction) to help form words in English</li> <li>Communicate through drawings</li> <li>Label familiar objects or pictures</li> </ul>	<ul style="list-style-type: none"> <li>Provide information using graphic organizers</li> <li>Generate lists of words/phrases from banks or walls</li> <li>Complete modeled sentence starters (e.g., “I like ____.”)</li> <li>Describe people, places, or objects from illustrated examples and models</li> </ul>	<ul style="list-style-type: none"> <li>Engage in prewriting strategies (e.g., use of graphic organizers)</li> <li>Form simple sentences using word/phrase banks</li> <li>Participate in interactive journal writing</li> <li>Give content-based information using visuals or graphics</li> </ul>	<ul style="list-style-type: none"> <li>Produce original sentences</li> <li>Create messages for social purposes (e.g., get well cards)</li> <li>Compose journal entries about personal experiences</li> <li>Use classroom resources (e.g., picture dictionaries) to compose sentences</li> </ul>	<ul style="list-style-type: none"> <li>Create a related series of sentences in response to prompts</li> <li>Produce content-related sentences</li> <li>Compose stories</li> <li>Explain processes or procedures using connected sentences</li> </ul>	

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## Can Do Descriptors: Grade Level Cluster 3-5

For the given level of English language proficiency and with visual, graphic, or interactive support through Level 4, English language learners can process or produce the **language** needed to:

	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	Level 6 - Reaching
LISTENING	<ul style="list-style-type: none"> <li>Point to stated pictures, words, or phrases</li> <li>Follow one-step oral directions (e.g., physically or through drawings)</li> <li>Identify objects, figures, people from oral statements or questions (e.g., “Which one is a rock?”)</li> <li>Match classroom oral language to daily routines</li> </ul>	<ul style="list-style-type: none"> <li>Categorize content-based pictures or objects from oral descriptions</li> <li>Arrange pictures or objects per oral information</li> <li>Follow two-step oral directions</li> <li>Draw in response to oral descriptions</li> <li>Evaluate oral information (e.g., about lunch options)</li> </ul>	<ul style="list-style-type: none"> <li>Follow multi-step oral directions</li> <li>Identify illustrated main ideas from paragraph-level oral discourse</li> <li>Match literal meanings of oral descriptions or oral reading to illustrations</li> <li>Sequence pictures from oral stories, processes, or procedures</li> </ul>	<ul style="list-style-type: none"> <li>Interpret oral information and apply to new situations</li> <li>Identify illustrated main ideas and supporting details from oral discourse</li> <li>Infer from and act on oral information</li> <li>Role play the work of authors, mathematicians, scientists, historians from oral readings, videos, or multi-media</li> </ul>	<ul style="list-style-type: none"> <li>Carry out oral instructions containing grade-level, content-based language</li> <li>Construct models or use manipulatives to problem-solve based on oral discourse</li> <li>Distinguish between literal and figurative language in oral discourse</li> <li>Form opinions of people, places, or ideas from oral scenarios</li> </ul>	
SPEAKING	<ul style="list-style-type: none"> <li>Express basic needs or conditions</li> <li>Name pre-taught objects, people, diagrams, or pictures</li> <li>Recite words or phrases from pictures of everyday objects and oral modeling</li> <li>Answer yes/no and choice questions</li> </ul>	<ul style="list-style-type: none"> <li>Ask simple, everyday questions (e.g., “Who is absent?”)</li> <li>Restate content-based facts</li> <li>Describe pictures, events, objects, or people using phrases or short sentences</li> <li>Share basic social information with peers</li> </ul>	<ul style="list-style-type: none"> <li>Answer simple content-based questions</li> <li>Re/tell short stories or events</li> <li>Make predictions or hypotheses from discourse</li> <li>Offer solutions to social conflict</li> <li>Present content-based information</li> <li>Engage in problem-solving</li> </ul>	<ul style="list-style-type: none"> <li>Answer opinion questions with supporting details</li> <li>Discuss stories, issues, and concepts</li> <li>Give content-based oral reports</li> <li>Offer creative solutions to issues/problems</li> <li>Compare/contrast content-based functions and relationships</li> </ul>	<ul style="list-style-type: none"> <li>Justify/defend opinions or explanations with evidence</li> <li>Give content-based presentations using technical vocabulary</li> <li>Sequence steps in grade-level problem-solving</li> <li>Explain in detail results of inquiry (e.g., scientific experiments)</li> </ul>	

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## Can Do Descriptors: Grade Level Cluster 3-5

For the given level of English language proficiency and with visual, graphic, or interactive support through Level 4, English language learners can process or produce the **language** needed to:

	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	Level 6 - Reaching
READING	<ul style="list-style-type: none"> <li>Match icons or diagrams with words/concepts</li> <li>Identify cognates from first language, as applicable</li> <li>Make sound/symbol/word relations</li> <li>Match illustrated words/phrases in differing contexts (e.g., on the board, in a book)</li> </ul>	<ul style="list-style-type: none"> <li>Identify facts and explicit messages from illustrated text</li> <li>Find changes to root words in context</li> <li>Identify elements of story grammar (e.g., characters, setting)</li> <li>Follow visually supported written directions (e.g., "Draw a star in the sky.")</li> </ul>	<ul style="list-style-type: none"> <li>Interpret information or data from charts and graphs</li> <li>Identify main ideas and some details</li> <li>Sequence events in stories or content-based processes</li> <li>Use context clues and illustrations to determine meaning of words/phrases</li> </ul>	<ul style="list-style-type: none"> <li>Classify features of various genres of text (e.g., "and they lived happily ever after"—fairy tales)</li> <li>Match graphic organizers to different texts (e.g., compare/contrast with Venn diagram)</li> <li>Find details that support main ideas</li> <li>Differentiate between fact and opinion in narrative and expository text</li> </ul>	<ul style="list-style-type: none"> <li>Summarize information from multiple related sources</li> <li>Answer analytical questions about grade-level text</li> <li>Identify, explain, and give examples of figures of speech</li> <li>Draw conclusions from explicit and implicit text at or near grade level</li> </ul>	
WRITING	<ul style="list-style-type: none"> <li>Label objects, pictures, or diagrams from word/phrase banks</li> <li>Communicate ideas by drawing</li> <li>Copy words, phrases, and short sentences</li> <li>Answer oral questions with single words</li> </ul>	<ul style="list-style-type: none"> <li>Make lists from labels or with peers</li> <li>Complete/produce sentences from word/phrase banks or walls</li> <li>Fill in graphic organizers, charts, and tables</li> <li>Make comparisons using real-life or visually-supported materials</li> </ul>	<ul style="list-style-type: none"> <li>Produce simple expository or narrative text</li> <li>String related sentences together</li> <li>Compare/contrast content-based information</li> <li>Describe events, people, processes, procedures</li> </ul>	<ul style="list-style-type: none"> <li>Take notes using graphic organizers</li> <li>Summarize content-based information</li> <li>Author multiple forms of writing (e.g., expository, narrative, persuasive) from models</li> <li>Explain strategies or use of information in solving problems</li> </ul>	<ul style="list-style-type: none"> <li>Produce extended responses of original text approaching grade level</li> <li>Apply content-based information to new contexts</li> <li>Connect or integrate personal experiences with literature/content</li> <li>Create grade-level stories or reports</li> </ul>	

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## Performance Definitions for the Levels of English Language Proficiency in Grades K-12

At the given level of English language proficiency, English language learners will process, understand, produce, or use:

<b>6 Reaching</b>	<ul style="list-style-type: none"> <li>• specialized or technical language reflective of the content areas at grade level</li> <li>• a variety of sentence lengths of varying linguistic complexity in extended oral or written discourse as required by the specified grade level</li> <li>• oral or written communication in English comparable to English-proficient peers</li> </ul>
<b>5 Bridging</b>	<ul style="list-style-type: none"> <li>• specialized or technical language of the content areas</li> <li>• a variety of sentence lengths of varying linguistic complexity in extended oral or written discourse, including stories, essays, or reports</li> <li>• oral or written language approaching comparability to that of English-proficient peers when presented with grade-level material</li> </ul>
<b>4 Expanding</b>	<ul style="list-style-type: none"> <li>• specific and some technical language of the content areas</li> <li>• a variety of sentence lengths of varying linguistic complexity in oral discourse or multiple, related sentences, or paragraphs</li> <li>• oral or written language with minimal phonological, syntactic, or semantic errors that do not impede the overall meaning of the communication when presented with oral or written connected discourse with sensory, graphic, or interactive support</li> </ul>
<b>3 Developing</b>	<ul style="list-style-type: none"> <li>• general and some specific language of the content areas</li> <li>• expanded sentences in oral interaction or written paragraphs</li> <li>• oral or written language with phonological, syntactic, or semantic errors that may impede the communication, but retain much of its meaning, when presented with oral or written, narrative, or expository descriptions with sensory, graphic, or interactive support</li> </ul>
<b>2 Beginning</b>	<ul style="list-style-type: none"> <li>• general language related to the content areas</li> <li>• phrases or short sentences</li> <li>• oral or written language with phonological, syntactic, or semantic errors that often impede the meaning of the communication when presented with one- to multiple-step commands, directions, questions, or a series of statements with sensory, graphic, or interactive support</li> </ul>
<b>1 Entering</b>	<ul style="list-style-type: none"> <li>• pictorial or graphic representation of the language of the content areas</li> <li>• words, phrases, or chunks of language when presented with one-step commands, directions, WH-, choice, or yes/no questions, or statements with sensory, graphic, or interactive support</li> <li>• oral language with phonological, syntactic, or semantic errors that often impede meaning when presented with basic oral commands, direct questions, or simple statements with sensory, graphic, or interactive support</li> </ul>

# ISTE Standards Students

## 1. Creativity and innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

- a. Apply existing knowledge to generate new ideas, products, or processes
- b. Create original works as a means of personal or group expression
- c. Use models and simulations to explore complex systems and issues
- d. Identify trends and forecast possibilities

## 2. Communication and collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

- a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
- b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats
- c. Develop cultural understanding and global awareness by engaging with learners of other cultures
- d. Contribute to project teams to produce original works or solve problems

## 3. Research and information fluency

Students apply digital tools to gather, evaluate, and use information.

- a. Plan strategies to guide inquiry
- b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
- c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- d. Process data and report results

## 4. Critical thinking, problem solving, and decision making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

- a. Identify and define authentic problems and significant questions for investigation
- b. Plan and manage activities to develop a solution or complete a project
- c. Collect and analyze data to identify solutions and/or make informed decisions
- d. Use multiple processes and diverse perspectives to explore alternative solutions

## 5. Digital citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

- a. Advocate and practice safe, legal, and responsible use of information and technology
- b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
- c. Demonstrate personal responsibility for lifelong learning
- d. Exhibit leadership for digital citizenship

## 6. Technology operations and concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations.

- a. Understand and use technology systems
- b. Select and use applications effectively and productively
- c. Troubleshoot systems and applications
- d. Transfer current knowledge to learning of new technologies

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# English Language Arts 2016-2017

**3rd** Grade



**CANYONS**  
School District

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# ENGLISH LANGUAGE ARTS (ELA) CURRICULUM MAP CANYONS SCHOOL DISTRICT

## Curriculum Mapping Purpose

Canyons School District's language arts curriculum maps are standards-based maps driven by the Utah Core Standards and implemented using Pearson Reading Street ©2011. Student achievement is increased when both teachers and students know where they are going, why they are going there, and what is required of them to get there.

## Curriculum Maps are a tool for:

- **ALIGNMENT:** Provides support and coordination between concepts, skills, standards, curriculum, and assessments
- **COMMUNICATION:** Articulates expectations and learning goals for students
- **PLANNING:** Focuses instruction and targets critical information
- **COLLABORATION:** Promotes professionalism and fosters dialogue between colleagues about best practices pertaining to sequencing, unit emphasis and length, integration, and review strategies
- **SCAFFOLDED INSTRUCTION AND GROUPING STRUCTURES:** The organization of a scaffolded classroom includes whole group, small group (e.g., teacher-led skill-based, cooperative learning), partner, and independent work where students are provided support towards mastery. As students assume more responsibility for the learning, gradual support is decreased in order to shift the responsibility for learning from the teacher to the students. (see pages 78-81 for scaffolding ideas)

Canyons School District elementary ELA maps are created and published by the CSD

Instructional Supports Department  
SALTA ELA

## General Instructions

### Pacing

This curriculum map provides guidance for intertwining the Utah Core Standards and the Reading Street curriculum. Following the map will allow students to access all core standards by the end of the year. To support students' mastery of the standards, targeted standards have been identified for each unit. Attending to these targeted standards will allow teachers to focus instruction for the given unit and better assess students' understanding of each standard.

### Units

There are six units that are to be covered over the course of the school year. Each unit represents six weeks of instruction.

### Big Question and Question of the Week

These questions provide an anchor for a thematic unit of instruction (six weeks) and are represented in the classroom on a Concept Board. Questions are referred to during Content Knowledge, Concept Talk, Concept Mapping, Main Selection, and in content integration when the question supports Science and/or Social Studies standards.

### Assessment

Assessment options include student observation, progress monitoring, Weekly Tests, Fresh Reads, Unit Tests, and Writing to Sources Writing Rubrics. Through the use of the Realize platform for online assessment, teachers can access reports to support student goal-setting and assessment. District-wide Standard-based Assessments are used as our common district assessments. DWSBA are mandatory and are given during a common assessment window.

### Targeted Technology Standards

In each unit, one of the International Society for Technology in Education (ISTE) Standards is integrated into the ELA block. Resources are available at <http://edtech.canyonsdistrict.org/elementary-curriculum-maps-iste-standards.html> to assist teachers in integrating technology into ELA instruction based on Reading Street units. The school's Educational Technology Specialist can provide additional supports as requested.

### Homework

The struggle to develop independent reading skills and language arts skills should occur while the teacher is available to support and scaffold the learning and correct student errors. Work that is sent home for students to complete should consist of concepts and skills that have been taught in class, been practiced, and the student can do independently. Homework should be used to build automaticity of skills already acquired and not for development of new skills without instruction. For appropriate homework practice, please see the HW Study Skill Pages available at <http://csdela.weebly.com/weekly-study-skills-hw-sheets.html>

## Evidence-Based Instructional Priorities

### Applied to Literacy Instruction

<b>Explicit Instruction</b> I Do - We Do - Y'all Do - You Do Model - Guide Practice – Partner - Independent			
<b>Systematic</b> <input type="checkbox"/> Focused on critical content <input type="checkbox"/> Skills, strategies, and concepts are sequenced logically <input type="checkbox"/> Break down complex skills <input type="checkbox"/> Lessons are organized and focused <input type="checkbox"/> Instructional routines are used <input type="checkbox"/> Examples and non-examples <input type="checkbox"/> Step-by-step demonstrations	<b>Relentless</b> <input type="checkbox"/> Adequate initial practice NOTE: Students who struggle may require 10-30 more times as many practice opportunities than their peers. <input type="checkbox"/> Distributed practice--frequent exposure to content/skill over time <input type="checkbox"/> Cumulative review <input type="checkbox"/> Teach to mastery	<b>Engaging</b> <input type="checkbox"/> Increasing Opportunities to Respond <input type="checkbox"/> Explicit Vocabulary Instruction <input type="checkbox"/> Feedback <input type="checkbox"/> Instructional Grouping <input type="checkbox"/> Acquire – Auto – Apply <input type="checkbox"/> Classroom PBIS	
<b>Increasing Opportunities to Respond</b> <i>Saying, Writing, Doing</i>		<b>Explicit Vocabulary Instruction</b>	
<b>Group Reading Strategies for Student Engagement</b> <input type="checkbox"/> <b>Model:</b> All students track as the teacher reads the passage. Teacher emphasizes reading in phrases with expression. <i>“My turn to model. Everyone tracking.”</i> - Choose this strategy when text contains dialogue, advanced punctuation or other content that makes it more difficult for students. <input type="checkbox"/> <b>Echo Reading:</b> The teacher reads a sentence fluently and immediately the students read it back to the teacher. Keep the time between the model and test very short. All students must track as the teacher or peer reads. <i>“My turn. Echo read. Everyone tracking.” (Model) “Tracking back. Your turn, read.”</i> <input type="checkbox"/> <b>Choral:</b> Students and teacher read together aloud as all students are tracking. This should be only on short sentences and title. Teacher sets pace. <i>“Everyone...choral read.”</i> - Choose this strategy with text that all students can read. <input type="checkbox"/> <b>Cloze:</b> Teacher reads and pauses at a word (focused vocabulary words) and students read the word. Continue for a paragraph or so. <i>“My turn. Everyone tracking. Cloze read....”</i> <input type="checkbox"/> <b>Partner:</b> <i>Partner A</i> reads a sentence and <i>Partner B</i> reads a sentence. Students must track as their partners read.		<input type="checkbox"/> <b>Introduce the word</b> <ul style="list-style-type: none"> <li>• Teacher says the word</li> <li>• All students repeat the word</li> <li>• Teacher gives a child-friendly definition</li> <li>• All students repeat the definition (with teacher guidance)</li> <li>• Repeat above steps as necessary</li> </ul> <input type="checkbox"/> <b>Demonstrate</b> <ul style="list-style-type: none"> <li>• Provide an example</li> <li>• Provide a non-example</li> <li>• Repeat above steps as necessary</li> </ul> <input type="checkbox"/> <b>Apply</b> <ul style="list-style-type: none"> <li>• Students turn to a partner and use the word in a sentence</li> <li>• Teacher shares a sentence using the word</li> </ul>	
<b>Feedback</b> <input type="checkbox"/> Corrective and Affirmative <input type="checkbox"/> Timely and Frequent <input type="checkbox"/> Specific and Reinforcing	<b>Instructional Grouping</b> <input type="checkbox"/> Whole group, Small groups, Partners <input type="checkbox"/> Fluid and flexible <input type="checkbox"/> Skill-Based Small Group Instruction	<b>Acquire – Auto – Apply</b> <input type="checkbox"/> Learn (acquire) the skill <input type="checkbox"/> Build the skill to automaticity <input type="checkbox"/> Apply the skill	<b>Classroom PBIS</b> <input type="checkbox"/> Forming clear behavior expectations <input type="checkbox"/> Explicitly teaching expectations to students <input type="checkbox"/> Reinforcing expectations with students <input type="checkbox"/> Correcting of problem behaviors in a systematic manner

## Intensified Systematic Vocabulary Instruction Routine for Building Academic Language

<b>Acquisition DOK 1</b>	<p><b>Introduction Phase</b></p> <ol style="list-style-type: none"> <li>1. Teacher writes/says the word.</li> <li>2. Students repeat the word.</li> <li>3. Multisyllabic breakdown</li>   <li>4. Teacher gives a student friendly definition, incorporating synonyms as appropriate.</li> <li>5. Students restate definition with teacher guidance.</li>   <li>6. Teacher identifies any prefixes, suffixes, base/root words, origin.</li> </ol>	<p><b>Teacher/Student Responsibilities</b></p> <p>T: The word is survive. What word?  S: Survive.  T: Let’s clap/tap “survive” into syllables.  T &amp; S: “sur” “vive”.  T: How many syllables?  S: 2 syllables  T: Where’s the syllable break?  S: In between sur-vive.  T: When people or animals don’t die when things are really bad or dangerous, they survive.  T &amp; S: So when people or animals don’t <b>die</b> when things are really <b>bad</b> or dangerous, they <b>survive</b>.    T: The prefix “sur” means over, above or more. The suffix “vive” means to live.</p>
<b>Building Automaticity DOK 2</b>	<p><b>Demonstration Phase</b></p> <ol style="list-style-type: none"> <li>7. Illustrate with examples/non-examples <ol style="list-style-type: none"> <li>a) Concrete examples (<i>realia</i>)</li> <li>b) Visual representations—video, pictures, diagrams, etc.</li> <li>c) Physical gesture</li> <li>d) Verbal Examples</li> </ol> </li> <li>8. Sentence Frames (ex. If I had to survive cold weather, I would need _____).</li>   <li>9. Check for students’ understanding by discerning between examples and non-examples (repeat as necessary)</li> </ol>	<p>T: Look at people on this river. It is very dangerous. However, they don’t get hurt or die, they survive.</p> <p>S: If I had to survive in cold weather, I would need to <i>wear a warm coat, snow boots, gloves and a hat.</i></p> <p>T: (Example) If whooping cranes had no food in the winter and all the food was buried in the snow, would they survive? Ones tell your partner why they wouldn’t survive.  S1: The cranes wouldn’t survive because they need food.  T: (Non-example) If there was an ample supply of food for the whooping crane would they survive. Twos tell your partner why they would survive.  S2: The crane would survive because it has plenty of food and it needs food to survive.</p>
<b>Application DOK 3</b>	<p><b>Application Phase</b></p> <ol style="list-style-type: none"> <li>10. Deepen students’ understanding by applying the word in a new context <ol style="list-style-type: none"> <li>a) Teacher asks a deep processing question</li> <li>b) Students responds via a quick write and/or orally with a partner or in a small group or whole group setting.</li> </ol> </li> </ol>	<p>T: If a coyote was chasing a rabbit, what could the rabbit do to survive.  S: (<i>Student responses will vary, but should demonstrate their level of understanding via their answer</i>)</p>

# Reading Street Implementation Assessment

## Systematic Use of Materials

- Teacher Edition is being referred to during instruction
- Concept Board is displayed
  - current
  - visible for student use
  - ELL Poster
- A-Z Sound Spelling Cards (1-3) and Alphabet Cards (K) are displayed
- Student editions are easily accessible for use
  - Students reading student editions and/or other RS ancillary materials
- Lesson/Unit is in line with CSD ELA Curriculum Map
- Digital resources from SuccessNet are used, as appropriate, to reinforce instruction

## Instructional Routines

- Instructional objectives are
  - posted
  - referred to throughout the lesson
- Instructional content is primarily focused on the lesson in the Teacher's Edition
- Concept Board is being built upon daily as part of instruction
- Teacher uses instructional routines as organized in Teacher's Manual (with additional enhancements such as the
  - intensified routines
  - vocabulary routine
  - group reading strategies
  - sentence frames
- Teacher frequently elicits responses from students:
  - verbal
  - non-verbal
  - physical
  - chorally
  - partners
  - individually
- Teacher provides timely
  - positive
  - corrective feedback to students and
  - provides looped feedback
- Teacher scaffolds and paces instruction based on student responses
- Transitions are smooth and students are clearly following a previously articulated routine

## Skill-Based Small Group Instruction

- Small group instruction is included in the daily schedule
- Small group teaching area is
  - well-organized
  - differentiated materials aligned to identified need based on data (e.g., decodable readers, leveled readers, Rtl Kit, PALS, FCRR, etc.)
- Teacher provides students with ample feedback loops and opportunities to practice
- Practice Station routines, procedures, and expectations are evident
- Evidence of differentiated practice station activities to support varying student need
- Practice Stations reinforce, review, and/or extend content



## English Language Arts Adaptive Testing Item Selection Criteria

Grade 3		
Strands	Min	Max
Reading Standards for Literature	20%	23%
Reading Standards for Informational Text	20%	23%
Listening Comprehension (Informational)	11%	14%
Language	17%	17%
Writing	29%	29%
DOK 1	11%	19%
DOK 2	17%	30%
DOK 3	14%	23%
DOK 4 (Writing)	29%	29%

Grade 4		
Strands	Min	Max
Reading Standards for Literature	20%	23%
Reading Standards for Informational Text	20%	23%
Listening Comprehension (Informational)	11%	14%
Language	17%	17%
Writing	29%	29%
DOK 1	11%	19%
DOK 2	17%	30%
DOK 3	14%	23%
DOK 4 (Writing)	29%	29%

Grade 5		
Strands	Min	Max
Reading Standards for Literature	20%	23%
Reading Standards for Informational Text	20%	23%
Listening Comprehension (Informational)	11%	14%
Language	17%	17%
Writing	29%	29%
DOK 1	11%	19%
DOK 2	17%	30%
DOK 3	14%	23%
DOK 4 (Writing)	29%	29%

Grade 6		
Strands	Min	Max
Reading Standards for Literature	17%	20%
Reading Standards for Informational Text	21%	24%
Listening Comprehension (Informational)	11%	14%
Language (vocabulary, 2 editing items)	17%	17%
Writing	29%	29%
DOK 1	11%	19%
DOK 2	17%	30%
DOK 3	14%	23%
DOK 4 (Writing)	29%	29%

Grade 7		
Strands	Min	Max
Reading Standards for Literature	17%	20%
Reading Standards for Informational Text	21%	24%
Listening Comprehension (Informational)	11%	14%
Language (vocabulary, 2 editing items)	17%	17%
Writing	29%	29%
DOK 1	11%	19%
DOK 2	17%	30%
DOK 3	14%	23%
DOK 4 (Writing)	29%	29%

Grade 8		
Strands	Min	Max
Reading Standards for Literature	17%	20%
Reading Standards for Informational Text	21%	24%
Listening Comprehension (Informational)	11%	14%
Language (vocabulary, 2 editing items)	17%	17%
Writing	29%	29%
DOK 1	11%	19%
DOK 2	17%	30%
DOK 3	14%	23%
DOK 4 (Writing)	29%	29%

Grade 9		
Strands	Min	Max
Reading Standards for Literature	16%	19%
Reading Standards for Informational Text	23%	26%
Listening Comprehension (Informational)	11%	14%
Language (vocabulary, 2 editing items)	17%	17%
Writing	29%	29%
DOK 1	11%	19%
DOK 2	17%	30%
DOK 3	14%	23%
DOK 4 (Writing)	29%	29%

Grade 10		
Strands	Min	Max
Reading Standards for Literature	13%	16%
Reading Standards for Informational Text	26%	29%
Listening Comprehension (Informational)	11%	14%
Language (vocabulary, 2 editing items)	17%	17%
Writing	29%	29%
DOK 1	11%	19%
DOK 2	17%	30%
DOK 3	14%	23%
DOK 4 (Writing)	29%	29%

Grade 11		
Strands	Min	Max
Reading Standards for Literature	13%	16%
Reading Standards for Informational Text	26%	29%
Listening Comprehension (Informational)	11%	14%
Language (vocabulary, 2 editing items)	17%	17%
Writing	29%	29%
DOK 1	11%	19%
DOK 2	17%	30%
DOK 3	14%	23%
DOK 4 (Writing)	29%	29%

**NOTE:** Writing and DOK 4 reflect 2 essays, each scored on 3 dimensions, for a total of 6 scores

**DOK Blueprint :** Depth of Knowledge (DOK) is an essential component of ELA instruction. As such, DOK is integrated in all ELA items throughout the Student Assessment of Growth and Excellence (SAGE). All students will see a variety of DOK and item difficulty. For more information about DOK please see: [http://static.pdesas.org/content/documents/M1-Slide\\_22\\_DOK\\_Hess\\_Cognitive\\_Rigor.pdf](http://static.pdesas.org/content/documents/M1-Slide_22_DOK_Hess_Cognitive_Rigor.pdf)



## 3<sup>rd</sup> Grade

### ELA Standards Not Explicitly Represented in the Curriculum Map

There are a few standards that have not been represented as targeted standards in any of the units. Below are those standards and the rationale for not being represented in the maps.

**Reading Literature Standard 4:** Determine the meaning of words and phrases as they are used in a text, distinguish literal from nonliteral language.

**Reading Informational Text Standard 4:** Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.

**Language Standard 3a:** Choose words and phrases for effect.\*

**Language Standard 5:** Demonstrate understanding of figurative language, word relationships and nuances in word meanings.

- a) Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*).
  - b) Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*).
  - c) Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew*, *believed*, *suspected*, *heard*, *wondered*).
- *These four standards all attend to various components of word knowledge or vocabulary. Reading Street intertwines these standards throughout each unit over the course of the year and a consistent focus on these standards is essential in order to master many of the other standards.*

**Reading Literature Standard 10:** By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2-3 text complexity band independently and proficiently. Recognize and being to read documents written in cursive.

**Reading Informational Text Standard 10:** By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2-3 text complexity band independently and proficiently. Recognize and being to read documents written in cursive.

- *The material taught in the literacy block and the content areas is aimed to helping students achieve Reading Standard 10. It is an on-going target that will be addressed all year long and is the ultimate outcome of instruction.*

**Language 3b:** Recognize and observe differences between the conventions of spoken and written Standard English.

**Language 3g:** Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

- *These two standards are an integrated component of the curriculum all year long; thus, it was not necessary to identify these standards as targets.*

Grade 3 Students:	Grade 4 Students:	Grade 5 Students:
<b>KEY IDEAS AND DETAILS</b>		
<ol style="list-style-type: none"> <li>1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</li> <li>2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.</li> <li>3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.</li> <li>2. Determine a theme of a story, drama, or poem from details in the text; summarize the text.</li> <li>3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character’s thoughts, words, or actions).</li> </ol>	<ol style="list-style-type: none"> <li>1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.</li> <li>2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.</li> <li>3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).</li> </ol>
<b>CRAFT AND STRUCTURE</b>		
<ol style="list-style-type: none"> <li>4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.</li> <li>5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as <i>chapter</i>, <i>scene</i>, and <i>stanza</i>; describe how each successive part builds on earlier sections.</li> <li>6. Distinguish their own point of view from that of the narrator or those of the characters.</li> </ol>	<ol style="list-style-type: none"> <li>4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., <i>Herculean</i>).</li> <li>5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.</li> <li>6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.</li> </ol>	<ol style="list-style-type: none"> <li>4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.</li> <li>5. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.</li> <li>6. Describe how a narrator’s or speaker’s point of view influences how events are described.</li> </ol>
<b>INTEGRATION OF KNOWLEDGE AND IDEAS</b>		
<ol style="list-style-type: none"> <li>7. Explain how specific aspects of a text’s illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).</li> <li>8. (Not applicable to literature)</li> <li>9. Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).</li> </ol>	<ol style="list-style-type: none"> <li>7. Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.</li> <li>8. (Not applicable to literature)</li> <li>9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.</li> </ol>	<ol style="list-style-type: none"> <li>7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).</li> <li>8. (Not applicable to literature)</li> <li>9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.</li> </ol>
<b>RANGE OF READING AND LEVEL OF TEXT COMPLEXITY</b>		
<ol style="list-style-type: none"> <li>10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently. Recognize and begin to read documents written in cursive.</li> </ol>	<ol style="list-style-type: none"> <li>10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. Continue to develop fluency when reading documents written in cursive.</li> </ol>	<ol style="list-style-type: none"> <li>10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently. Continue to develop fluency when reading documents written in cursive.</li> </ol>

# Reading Standards for Informational Text K–5

[RI]

## Grade 3 Students:

## Grade 4 Students:

## Grade 5 Students:

### KEY IDEAS AND DETAILS

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
2. Determine the main idea of a text; recount the key details and explain how they support the main idea.
3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.
3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

### CRAFT AND STRUCTURE

4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*.
5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
6. Distinguish their own point of view from that of the author of a text.

4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*.
5. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*.
5. Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.
6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.

### INTEGRATION OF KNOWLEDGE AND IDEAS

7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).
9. Compare and contrast the most important points and key details presented in two texts on the same topic.

7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
8. Explain how an author uses reasons and evidence to support particular points in a text.
9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).
9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

# Reading Standards for Informational Text K–5

[RI]

## Grade 3 Students:

## Grade 4 Students:

## Grade 5 Students:

### RANGE OF READING AND LEVEL OF TEXT COMPLEXITY

**10.** By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently. Recognize and begin to read documents written in cursive.

**10.** By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. Continue to develop fluency when reading documents written in cursive.

**10.** By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently. Continue to develop fluency when reading documents written in cursive.

# Reading Standards: Foundational Skills (K–5)

[RF]

## Grade 3 Students:

## Grade 4 Students:

## Grade 5 Students:

### PHONICS AND WORD RECOGNITION

- 3.** Know and apply grade-level phonics and word analysis skills in decoding words.
- Identify and know the meaning of the most common prefixes and derivational suffixes.
  - Decode words with common Latin suffixes.
  - Decode multisyllable words.
  - Read grade-appropriate irregularly spelled words.

- 3.** Know and apply grade-level phonics and word analysis skills in decoding words.
- Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

- 3.** Know and apply grade-level phonics and word analysis skills in decoding words.
- Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

### FLUENCY

- 4.** Read with sufficient accuracy and fluency to support comprehension.
- Read grade-level text with purpose and understanding.
  - Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
  - Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

- 4.** Read with sufficient accuracy and fluency to support comprehension.
- Read grade-level text with purpose and understanding.
  - Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
  - Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

- 4.** Read with sufficient accuracy and fluency to support comprehension.
- Read grade-level text with purpose and understanding.
  - Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
  - Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

## Grade 3 Students:

## Grade 4 Students:

## Grade 5 Students:

### TEXT TYPE AND PURPOSES

1. Write opinion pieces on topics or texts, supporting a point of view with reasons.
  - a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
  - b. Provide reasons that support the opinion.
  - c. Use linking words and phrases (e.g., *because, therefore, since, for example*) to connect opinion and reasons.
  - d. Provide a concluding statement or section.
  
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
  - a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
  - b. Develop the topic with facts, definitions, and details.
  - c. Use linking words and phrases (e.g., *also, another, and, more, but*) to connect ideas within categories of information.
  - d. Provide a concluding statement or section.
  
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
  - a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
  - b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
  - c. Use temporal words and phrases to signal event order.
  - d. Provide a sense of closure.

1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
  - a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer’s purpose.
  - b. Provide reasons that are supported by facts and details.
  - c. Link opinion and reasons using words and phrases (e.g., *for instance, in order to, in addition*).
  - d. Provide a concluding statement or section related to the opinion presented.
  
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
  - a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
  - b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
  - c. Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*).
  - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
  - e. Provide a concluding statement or section related to the information or explanation presented.
  
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
  - a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
  - b. Use dialogue and description to develop experiences and events or show the responses of characters to situations.
  - c. Use a variety of transitional words and phrases to manage the sequence of events.
  - d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
  - e. Provide a conclusion that follows from the narrated experiences or events.

1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
  - a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer’s purpose.
  - b. Provide logically ordered reasons that are supported by facts and details.
  - c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently, specifically*).
  - d. Provide a concluding statement or section related to the opinion presented.
  
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
  - a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
  - b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
  - c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast, especially*).
  - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
  - e. Provide a concluding statement or section related to the information or explanation presented.
  
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
  - a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
  - b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
  - c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
  - d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
  - e. Provide a conclusion that follows from the narrated experiences or events.

## Grade 3 Students:

## Grade 4 Students:

## Grade 5 Students:

## PRODUCTION AND DISTRIBUTION OF WRITING

4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language Standards 1–3 up to and including grade 3 on page 30.)
6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language Standards 1–3 up to and including grade 4 on page 30.)
6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language Standards 1–3 up to and including grade 5 on page 30.)
6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

## RESEARCH TO BUILD AND PRESENT KNOWLEDGE

7. Conduct short research projects that build knowledge about a topic.
8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
9. (Begins in grade 4)

7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.
8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
  - a. Apply *grade 4 Reading Standards* to literature (i.e., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions].”).
  - b. Apply *grade 4 Reading Standards* to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”).

7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
  - a. Apply *grade 5 Reading Standards* to literature (i.e., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]”).
  - b. Apply *grade 5 Reading Standards* to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]”).

## RANGE OF WRITING

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

## Grade 3 Students:

## Grade 4 Students:

## Grade 5 Students:

### COMPREHENSION AND COLLABORATION

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.
  - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
  - b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
  - c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
  - d. Explain their own ideas and understanding in light of the discussion.
2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly.
  - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
  - b. Follow agreed-upon rules for discussions and carry out assigned roles.
  - c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
  - d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.
2. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Identify the reasons and evidence a speaker provides to support particular points.

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.
  - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
  - b. Follow agreed-upon rules for discussions and carry out assigned roles.
  - c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
  - d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

### PRESENTATION OF KNOWLEDGE AND IDEAS

4. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
5. Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.
6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 on page 30 for specific expectations.)

4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
6. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 and 3 on page 30 for specific expectations.)

4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 on page 30 for specific expectations.)

## Grade 3 Students:

## Grade 4 Students:

## Grade 5 Students:

## CONVENTIONS OF STANDARD ENGLISH

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
  - a. Independently and legibly write all upper- and lower-case cursive letters.
  - b. Produce grade-appropriate text using legible cursive writing.
  - c. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.
  - d. Form and use regular and irregular plural nouns.
  - e. Use abstract nouns (e.g., *childhood*).
  - f. Form and use regular and irregular verbs.
  - g. Form and use the simple (e.g., *I walked; I walk; I will walk*) verb tenses.
  - h. Ensure subject-verb and pronoun-antecedent agreement.\*
  - i. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.
  - j. Use coordinating and subordinating conjunctions.
  - k. Produce simple, compound, and complex sentences.
  
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
  - a. Capitalize appropriate words in titles.
  - b. Use commas in addresses.
  - c. Use commas and quotation marks in dialogue.
  - d. Form and use possessives.
  - e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*).
  - f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.
  - g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
  - a. Fluently, independently, and legibly write all upper and lower case cursive letters.
  - b. Produce grade-appropriate text using legible cursive writing.
  - c. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*).
  - d. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses.
  - e. Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions.
  - f. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag rather than a red small bag*).
  - g. Form and use prepositional phrases.
  - h. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.\*
  - i. Correctly use frequently confused words (e.g., *to, too, two; there, their*).\*
  
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
  - a. Use correct capitalization.
  - b. Use commas and quotation marks to mark direct speech and quotations from a text.
  - c. Use a comma before a coordinating conjunction in a compound sentence.
  - d. Spell grade-appropriate words correctly, consulting references as needed.

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
  - a. Maintain legible and fluent cursive writing.
  - b. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.
  - c. Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses.
  - d. Use verb tense to convey various times, sequences, states, and conditions.
  - e. Recognize and correct inappropriate shifts in verb tense.\*
  - f. Use correlative conjunctions (e.g., *either/or, neither/nor*).
  
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
  - a. Use punctuation to separate items in a series.\*
  - b. Use a comma to separate an introductory element from the rest of the sentence.
  - c. Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*).
  - d. Use underlining, quotation marks, or italics to indicate titles of works.
  - e. Spell grade-appropriate words correctly, consulting references as needed.

## Grade 3 Students:

## Grade 4 Students:

## Grade 5 Students:

### KNOWLEDGE OF LANGUAGE

- 3.** Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Choose words and phrases for effect.\*
  - Recognize and observe differences between the conventions of spoken and written standard English.
- 4.** Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on *grade 3 reading and content*, choosing flexibly from a range of strategies.
- Use sentence-level context as a clue to the meaning of a word or phrase.
  - Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat*).
  - Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company, companion*).
  - Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.

- 3.** Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Choose words and phrases to convey ideas precisely.\*
  - Choose punctuation for effect.\*
  - Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).
- 4.** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.
- Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
  - Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*).
  - Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

- 3.** Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
  - Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.
- 4.** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content*, choosing flexibly from a range of strategies.
- Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
  - Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*).
  - Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

## Grade 3 Students:

## Grade 4 Students:

## Grade 5 Students:

## VOCABULARY ACQUISITION AND USE

5. Demonstrate understanding of word relationships and nuances in word meanings.
- Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*).
  - Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*).
  - Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*).
6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*).

5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context.
  - Recognize and explain the meaning of common idioms, adages, and proverbs.
  - Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).
6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed, whined, stammered*) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).

5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- Interpret figurative language, including similes and metaphors, in context.
  - Recognize and explain the meaning of common idioms, adages, and proverbs.
  - Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*).

## Comprehension and Collaboration

### Standard 1

***Anchor Standard 1: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.***

Kindergarten: Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). Continue a conversation through multiple exchanges.

1<sup>st</sup> Grade: Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups. Follow agreed-upon rules for discussions (e.g., listening to others *with care, speaking one at a time about the topics and texts under discussion*). Build on others' talk in conversations by responding to the comments of others through multiple exchanges. Ask questions to clear up any confusion about the topics and texts under discussion.

2<sup>nd</sup> Grade: Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups. Follow agreed-upon rules for discussions (e.g., *gaining the floor in respectful ways*, listening to others with care, speaking one at a time about the topics and texts under discussion). Build on others' talk in conversations by *linking their comments to the remarks of others*. Ask for *clarification and further explanation as needed* about the topics and texts under discussion.

3<sup>rd</sup> Grade: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). Ask questions to *check understanding of information presented, stay on topic*, and link their comments to the remarks of others. *Explain their own ideas and understanding in light of the discussion.*

4<sup>th</sup> Grade: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. Follow agreed-upon rules for discussions and *carry out assigned roles. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. Review the key ideas expressed* and explain their own ideas and understanding in light of the discussion.

5<sup>th</sup> Grade: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. Follow agreed-upon rules for discussions and carry out assigned roles. Pose and respond to specific questions by making comments that contribute to the discussion and *elaborate on the remarks of others*. Review the key ideas expressed and *draw conclusions in light of information and knowledge gained from the discussions.*

**Standard 2**

**Anchor Standard 2: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.**

Kindergarten: <b>Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.</b>
1 <sup>st</sup> Grade: Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
2 <sup>nd</sup> Grade: <b>Recount or describe key ideas</b> or details from a text read aloud or information presented orally or through other media.
3 <sup>rd</sup> Grade: <b>Determine the main ideas and supporting details</b> of a text read aloud or information presented in diverse media and formats, <b>including visually, quantitatively, and orally.</b>
4 <sup>th</sup> Grade: <b>Paraphrase portions of a text read aloud</b> or information presented in diverse media and formats, including visually, quantitatively, and orally.
5 <sup>th</sup> Grade: <b>Summarize a written text</b> read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

**Standard 3**

**Anchor Standard 3: Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric.**

Kindergarten: Ask and answer questions <b>in order to seek help, get information, or clarify something that is not understood.</b>
1 <sup>st</sup> Grade: Ask and answer questions <b>about what a speaker says in order to gather additional</b> information or clarify something that is not understood.
2 <sup>nd</sup> Grade: Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or <b>deepen understanding of a topic or issue.</b>
3 <sup>rd</sup> Grade: Ask and answer questions about <b>information</b> from a speaker, <b>offering appropriate elaboration and detail.</b>
4 <sup>th</sup> Grade: <b>Identify the reasons and evidence a speaker provides to support particular points.</b>
5 <sup>th</sup> Grade: <b>Summarize the points a speaker makes and explain how each claim</b> is supported by reasons and evidence.

**Presentation of Knowledge and Ideas**

**Standard 4**

**Anchor Standard 4: Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.**

Kindergarten: <b>Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.</b>
1 <sup>st</sup> Grade: Describe people, places, things, and events with <b>relevant details, expressing ideas and feelings clearly.</b>
2 <sup>nd</sup> Grade: <b>Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.</b>
3 <sup>rd</sup> Grade: <b>Report on a topic or text</b> , tell a story, or recount an experience with appropriate facts and relevant, descriptive details, <b>speaking clearly at an understandable pace.</b>
4 <sup>th</sup> Grade: Report on a topic or text, tell a story, or recount an experience in an <b>organized manner</b> , using appropriate facts and relevant, descriptive details to <b>support main ideas or themes</b> ; speak clearly at an understandable pace.
5 <sup>th</sup> Grade: Report on a topic or text or present an <b>opinion, sequencing ideas logically</b> and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

**Standard 5**

***Anchor Standard 5: Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.***

Kindergarten: Add drawings or other visual displays to descriptions as desired to provide additional detail.
1 <sup>st</sup> Grade: Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
2 <sup>nd</sup> Grade: Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.
3 <sup>rd</sup> Grade: Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.
4 <sup>th</sup> Grade: Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes
5 <sup>th</sup> Grade: Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

**Standard 6**

***Anchor Standard 6: Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.***

Kindergarten: Speak audibly and express thoughts, feelings, and ideas clearly.
1 <sup>st</sup> Grade: Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3.)
2 <sup>nd</sup> Grade: Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3.)
3 <sup>rd</sup> Grade: Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification (See grade 3 Language standards 1 and 3.)
4 <sup>th</sup> Grade: Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standard 1.)
5 <sup>th</sup> Grade: Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3.)

## Key Ideas and Details

### Standard 1

**Anchor Standard 1: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from text.**

Kindergarten: With prompting and support, <b>ask and answer questions about key details in text.</b>
1 <sup>st</sup> Grade: Ask and answer about key details in text.
2 <sup>nd</sup> Grade: Ask and answer such questions as <b>who, what, where, when, why, and how</b> to demonstrate understanding of key details in a text
3 <sup>rd</sup> Grade: Ask and answer questions to demonstrate understanding of a text, <b>referring explicitly to the text as the basis for the answers.</b>
4 <sup>th</sup> Grade: <b>Refer to details and examples</b> in a text when explaining what the text says explicitly and when <b>drawing inferences from the text.</b>
5 <sup>th</sup> Grade: <b>Quote accurately</b> from a text when explaining what the text says explicitly and when drawing inferences from the text.

### Standard 2

**Anchor Standard 2: Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.**

Kindergarten: With prompting and support, <b>retell familiar stories, including key details.</b>
1 <sup>st</sup> Grade: Retell stories, including key details, and <b>demonstrate understanding of their central message or lesson.</b>
2 <sup>nd</sup> Grade: Recount stories, including <b>fables and folktales</b> from diverse cultures, and determine their central message, lesson, or <b>moral.</b>
3 <sup>rd</sup> Grade: Recount stories, including fables, folktales, and <b>myths</b> from diverse cultures; determine the central message, lesson, or moral and <b>explain how it is conveyed through key details in the text.</b>
4 <sup>th</sup> Grade: Determine a <b>theme of a story, drama, or poem from details in the text; summarize the text.</b>
5 <sup>th</sup> Grade: Determine a theme of a story, drama, or poem from details in the text, <b>including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.</b>

### Standard 3

**Anchor Standard 3: Analyze how and why individuals, events, or ideas develop and interact over the course of a text.**

Kindergarten: With prompting and support, <b>identify characters, settings, and major events in a story.</b>
1 <sup>st</sup> Grade: Describe characters, settings, and major events in a story, <b>using key details.</b>
2 <sup>nd</sup> Grade: <b>Describe how characters in a story respond to major events and challenges.</b>
3 <sup>rd</sup> Grade: Describe characters in a story (e.g., <b>their traits, motivations, or feelings</b> ) and <b>explain how their actions contribute to the sequence of events.</b>
4 <sup>th</sup> Grade: Describe <b>in depth</b> a character, setting, or event in a story or drama, <b>drawing on specific details in the text (e.g., a character's thoughts, words, or actions).</b>
5 <sup>th</sup> Grade: <b>Compare and contrast two or more</b> characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., <b>how characters interact</b> ).

**Craft and Structure****Standard 4**

**Anchor Standard 4: Interpret words and phrases as they are used in text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.**

Kindergarten: Ask and answer questions about unknown words in text.

1<sup>st</sup> Grade: Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.

2<sup>nd</sup> Grade: Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.

3<sup>rd</sup> Grade: Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

4<sup>th</sup> Grade: Determine the meaning of words and phrases as they are used in text, including those that allude to significant characters found in mythology (e.g., Herculean).

5<sup>th</sup> Grade: Determine the meaning of words and phrases as they are used in text, including figurative language such as metaphors and similes.

**Standard 5**

**Anchor Standard 5: Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of text (e.g., a section, chapter, scene or stanza) relate to each other and the whole.**

Kindergarten: Recognize common types of texts (e.g., storybooks, poems).

1<sup>st</sup> Grade: Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.

2<sup>nd</sup> Grade: Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.

3<sup>rd</sup> Grade: Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene and stanza; describe how each successive part builds on earlier sections.

4<sup>th</sup> Grade: Explain major differences between poems, drama, prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g. casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.

5<sup>th</sup> Grade: Explain how a series of chapters, scenes or stanzas fits together to provide the overall structure of a particular story, drama, or poem.

**Standard 6**

**Anchor Standard 6: Assess how point of view or purpose shapes the content and style of a text.**

Kindergarten: With prompting and support, name the author and illustrator of a story and define the role of each in tell the story.

1<sup>st</sup> Grade: Identify who is telling the story at various points in a text.

2<sup>nd</sup> Grade: Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

3<sup>rd</sup> Grade: Distinguish their own point of view from that of the narrator or those of the characters.

4<sup>th</sup> Grade: Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.

5<sup>th</sup> Grade: Describe how a narrator's or speaker's point of view influences how event are described.

**Integration of Knowledge and Ideas**  
**Standard 7**

**Anchor Standard 7: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.**

Kindergarten: With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).

1<sup>st</sup> Grade: Use illustrations and details in a story to describe its characters, setting, or events.

2<sup>nd</sup> Grade: Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting or plot.

3<sup>rd</sup> Grade: Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting)

4<sup>th</sup> Grade: Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.

5<sup>th</sup> Grade: Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g. graphic novel, multimedia presentation of fiction, folktale, myth, poem).

**Standard 8**

**Anchor Standard 8: Delineate and evaluate the argument and specific claims in a text, including the validity of reasoning as well as the relevance and sufficiency of the evidence.**

Kindergarten: Not applicable.

1<sup>st</sup> Grade: Not applicable.

2<sup>nd</sup> Grade: Not applicable.

3<sup>rd</sup> Grade: Not applicable.

4<sup>th</sup> Grade: Not applicable.

5<sup>th</sup> Grade: Not applicable.

**Standard 9**

**Anchor Standard 9: Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.**

Kindergarten: With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.

1<sup>st</sup> Grade: Compare and contrast the adventures and experiences of characters in stories.

2<sup>nd</sup> Grade: Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

3<sup>rd</sup> Grade: Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series)

4<sup>th</sup> Grade: Compare and contrast the treatment of similar themes and topics (e.g. opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.

5<sup>th</sup> Grade: Compare and contrast stories in the same genre (e.g. mysteries and adventure stories) on their approaches to similar themes and topics.

**Range of Reading and Level of Text Complexity**  
**Standard 10**

***Anchor Standard 10: Read and comprehend complex literary and informational texts independently and proficiently.***

Kindergarten: <b>Actively engage in group reading activities with purpose and understanding.</b>
1 <sup>st</sup> Grade: <b>With prompting and support, read prose and poetry of appropriate complexity for grade 1.</b>
2 <sup>nd</sup> Grade: <b>By the end of the year, read and comprehend literature, including stories and poetry, in grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</b>
3 <sup>rd</sup> Grade: <b>By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2-3 complexity band <b>proficiently and independently.</b></b>
4 <sup>th</sup> Grade: <b>By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.</b>
5 <sup>th</sup> Grade: <b>By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity band <b>independently and proficiently.</b></b>

**Key Ideas and Details**

**Standard 1**

**Anchor Standard 1: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from text.**

Kindergarten: <b>With prompting and support, ask and answer questions about key details in a text.</b>
1 <sup>st</sup> Grade: Ask and answer questions about key details in a text.
2 <sup>nd</sup> Grade: Ask and answer such questions as <i>who, what, where, when, why, and how</i> to demonstrate understanding of key details in a text.
3 <sup>rd</sup> Grade: Ask and answer questions to demonstrate understanding of a text, <b>referring explicitly to the text as the basis for the answers.</b>
4 <sup>th</sup> Grade: <b>Refer to details and examples</b> in a text when explaining what the text says explicitly and <b>when drawing inferences from the text.</b>
5 <sup>th</sup> Grade: <b>Quote accurately</b> from a text when explaining what the text says explicitly and when drawing inferences from the text.

**Standard 2**

**Anchor Standard 2: Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.**

Kindergarten: <b>With prompting and support, identify the main topic and retell key details of a text.</b>
1 <sup>st</sup> Grade: Identify the main topic and retell key details of a text.
2 <sup>nd</sup> Grade: Identify the main topic of a <b>multi-paragraph text</b> as well as the <b>focus of specific paragraphs</b> within the text.
3 <sup>rd</sup> Grade: Determine the <b>main idea</b> of a text; recount the key details and <b>explain how they support the main idea.</b>
4 <sup>th</sup> Grade: Determine the main idea of a text and <b>explain how it is supported by key details; summarize the text.</b>
5 <sup>th</sup> Grade: <b>Determine two or more main ideas of a text</b> and explain how they are supported by key details; summarize the text.

**Standard 3**

**Anchor Standard 3: Analyze how and why individuals, events, or ideas develop and interact over the course of a text.**

Kindergarten: <b>With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text</b>
1 <sup>st</sup> Grade: Describe the connection between two individuals, events, ideas, or pieces of information in a text.
2 <sup>nd</sup> Grade: Describe the connection between a <b>series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.</b>
3 <sup>rd</sup> Grade: Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, <b>using language that pertains to time, sequence, and cause/effect.</b>
4 <sup>th</sup> Grade: Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, <b>including what happened and why, based on specific information in the text.</b>
5 <sup>th</sup> Grade: Explain the <b>relationships or interactions between two or more individuals</b> , events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

**Craft and Structure**  
**Standard 4**

**Anchor Standard 4:** Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

Kindergarten: <b>With prompting and support, ask and answer questions about unknown words in a text.</b>
1 <sup>st</sup> Grade: Ask and answer questions to help <b>determine or clarify the meaning of words</b> and phrases in a text.
2 <sup>nd</sup> Grade: Determine the meaning of words and phrases in a text <b>relevant to a grade 2 topic or subject area.</b>
3 <sup>rd</sup> Grade: Determine the meaning of <b>general academic and domain-specific words and phrases</b> in a text relevant to a <b>grade 3 topic or subject area.</b>
4 <sup>th</sup> Grade: Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a <b>grade 4 topic or subject area.</b>
5 <sup>th</sup> Grade: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a <b>grade 5 topic or subject area.</b>

**Standard 5**

**Anchor Standard 5:** Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.

Kindergarten: <b>Identify the front cover, back cover, and title page of a book.</b>
1 <sup>st</sup> Grade: <b>Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.</b>
2 <sup>nd</sup> Grade: Know and use various text features (e.g., <b>captions, bold print, subheadings</b> , glossaries, <b>indexes</b> , electronic menus, icons) to locate key facts or information in a text <b>efficiently.</b>
3 <sup>rd</sup> Grade: <b>Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.</b>
4 <sup>th</sup> Grade: <b>Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.</b>
5 <sup>th</sup> Grade: <b>Compare and contrast</b> the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in <b>two or more texts.</b>

**Standard 6**

**Anchor Standard 6:** Assess how point of view or purpose shapes the content and style of a text.

Kindergarten: <b>Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.</b>
1 <sup>st</sup> Grade: <b>Distinguish between information provided by pictures</b> or other illustrations <b>and</b> information provided <b>by the words</b> in a text.
2 <sup>nd</sup> Grade: <b>Identify the main purpose of a text, including what the author wants to answer, explain, or describe.</b>
3 <sup>rd</sup> Grade: <b>Distinguish their own point of view</b> from that of the author of a text.
4 <sup>th</sup> Grade: <b>Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.</b>
5 <sup>th</sup> Grade: Analyze <b>multiple accounts</b> of the same event or topic, noting important similarities and differences in the point of view they represent.

**Integration of Knowledge and Ideas**  
**Standard 7**

**Anchor Standard 7: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.<sup>1</sup>**

Kindergarten: <b>With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).</b>
1 <sup>st</sup> Grade: Use the illustrations and details in a text to <b>describe its key ideas.</b>
2 <sup>nd</sup> Grade: <b>Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.</b>
3 <sup>rd</sup> Grade: <b>Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</b>
4 <sup>th</sup> Grade: <b>Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.</b>
5 <sup>th</sup> Grade: <b>Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.</b>

**Standard 8**

**Anchor Standard 8: Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.**

Kindergarten: <b>With prompting and support, identify the reasons an author gives to support points in a text.</b>
1 <sup>st</sup> Grade: Identify the reasons an author gives to support points in a text.
2 <sup>nd</sup> Grade: Describe <b>how reasons support specific points the author makes</b> in a text.
3 <sup>rd</sup> Grade: Describe the <b>logical connection between particular sentences and paragraphs in a text</b> (e.g., comparison, cause/effect, first/second/third in a sequence).
4 <sup>th</sup> Grade: <b>Explain how an author uses reasons and evidence to support particular points in a text.</b>
5 <sup>th</sup> Grade: Explain how an author uses reasons and evidence to support particular points in a text, <b>identifying which reasons and evidence support which point(s).</b>

**Standard 9**

**Anchor Standard 9: Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.**

Kindergarten: <b>With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).</b>
1 <sup>st</sup> Grade: Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
2 <sup>nd</sup> Grade: <b>Compare and contrast the most important points presented by two texts on the same topic.</b>
3 <sup>rd</sup> Grade: Compare and contrast the most important points <b>and key details</b> presented in two texts on the same topic.
4 <sup>th</sup> Grade: <b>Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.</b>
5 <sup>th</sup> Grade: Integrate information from <b>several texts</b> on the same topic in order to write or speak about the subject knowledgeably.

**Range of Reading and Level of Complexity**  
**Standard 10**

**Anchor Standard 10: Read and comprehend complex literary and informational texts independently and proficiently.**

Kindergarten: <b>Actively engage in group reading activities with purpose and understanding.</b>
1 <sup>st</sup> Grade: With prompting and support, <b>read informational texts appropriately complex for grad</b>
2 <sup>nd</sup> Grade: By the end of year, <b>read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</b>
3 <sup>rd</sup> Grade: By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band <b>independently and proficiently.</b>
4 <sup>th</sup> Grade: By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades <b>4–5 text complexity band</b> proficiently, with scaffolding as needed at the high end of the range.
5 <sup>th</sup> Grade: By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades <b>4–5 text complexity band independently and proficiently.</b>

## Text Types and Purposes

### Standard 1

**Anchor Standard 1: Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.**

Kindergarten: Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., <i>My favorite book is...</i> ).
1 <sup>st</sup> Grade: Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
2 <sup>nd</sup> Grade: Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., <i>because, and, also</i> ) to connect opinion and reasons, and provide a concluding statement or section.
3 <sup>rd</sup> Grade: Write opinion pieces on topics or texts, supporting a point of view with reasons. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. Provide reasons that support the opinion. Use linking words and phrases (e.g., <i>because, therefore, since, for example</i> ) to connect opinion and reasons. Provide a concluding statement or section.
4 <sup>th</sup> Grade: Write opinion pieces on topics or texts, supporting a point of view with reasons and information. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. Provide reasons that are supported by facts and details. Link opinion and reasons using words and phrases (e.g., <i>for instance, in order to, in addition</i> ). Provide a concluding statement or section related to the opinion presented.
5 <sup>th</sup> Grade: Write opinion pieces on topics or texts, supporting a point of view with reasons and information. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. Provide logically ordered reasons that are supported by facts and details. Link opinion and reasons using words, phrases, and clauses (e.g., <i>consequently, specifically</i> ). Provide a concluding statement or section related to the opinion presented.

### Standard 2

**Anchor Standard 2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.**

Kindergarten: Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
1 <sup>st</sup> Grade: Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.
2 <sup>nd</sup> Grade: Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
3 <sup>rd</sup> Grade: Write informative/explanatory texts to examine a topic and convey ideas and information clearly. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. Develop the topic with facts, definitions, and details. Use linking words and phrases (e.g., <i>also, another, and, more, but</i> ) to connect ideas within categories of information. Provide a concluding statement or section.
4 <sup>th</sup> Grade: Write informative/explanatory texts to examine a topic and convey ideas and information clearly. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. Link ideas within categories of information using words and phrases (e.g., <i>another, for example, also, because</i> ). Use precise language and domain-specific vocabulary to inform about or explain the topic. Provide a concluding statement or section related to the information or explanation presented.
5 <sup>th</sup> Grade: Write informative/explanatory texts to examine a topic and convey ideas and information clearly. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. Link ideas

within and across categories of information using words, phrases, and **clauses** (e.g., *in contrast, especially*). Use precise language and domain-specific vocabulary to inform about or explain the topic. Provide a concluding statement or section related to the information or explanation presented.

### Standard 3

**Anchor Standard 3: Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.**

Kindergarten: Use a **combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order** in which they occurred, and **provide a reaction** to what happened.

1<sup>st</sup> Grade: Write narratives in which they **recount two or more appropriately sequenced events**, include some **details** regarding what happened, **use temporal words** to signal event order, and provide some **sense of closure**.

2<sup>nd</sup> Grade: Write narratives in which they recount a **well-elaborated event or short sequence of events**, include details to **describe actions, thoughts, and feelings**, use temporal words to signal event order, and provide a sense of closure.

3<sup>rd</sup> Grade: Write narratives to develop **real or imagined** experiences or events using **effective technique, descriptive details, and clear event sequences**. Establish a **situation** and **introduce a narrator and/or characters; organize an event sequence that unfolds naturally**. Use **dialogue** and descriptions of actions, thoughts, and feelings to develop experiences and events or show the **response of characters to situations**. Use temporal words and **phrases** to signal event order. Provide a sense of closure.

4<sup>th</sup> Grade: Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. Use dialogue and description to develop experiences and events or show the responses of characters to situations. Use a **variety of transitional words and phrases** to manage the sequence of events. Use **concrete words and phrases and sensory details** to convey experiences and events precisely. Provide a **conclusion that follows from the narrated experiences or events**.

5<sup>th</sup> Grade: Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. Use narrative techniques, such as dialogue, description, and **pacing**, to develop experiences and events or show the responses of characters to situations. Use a variety of transitional words, phrases, and **clauses** to manage the sequence of events. Use concrete words and phrases and sensory details to convey experiences and events precisely. Provide a conclusion that follows from the narrated experiences or events.

### Production and Distribution of Writing

#### Standard 4

**Anchor Standard 4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.**

Kindergarten: N/A

1<sup>st</sup> Grade: N/A

2<sup>nd</sup> Grade: N/A

3<sup>rd</sup> Grade: **With guidance and support from adults**, produce writing in which the **development and organization are appropriate to task and purpose**. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

4<sup>th</sup> Grade: Produce **clear and coherent writing** in which the development and organization are appropriate to task, purpose, and **audience**. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

5<sup>th</sup> Grade: Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

**Standard 5**

**Anchor Standard 5: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.**

Kindergarten: <b>With guidance and support</b> from adults, <b>respond to questions</b> and <b>suggestions</b> from peers and <b>add details</b> to strengthen writing as needed.
1 <sup>st</sup> Grade: With guidance and support from adults, <b>focus on a topic</b> , respond to questions and suggestions from peers, and add details to strengthen writing as needed.
2 <sup>nd</sup> Grade: With guidance and support from adults and <b>peers</b> , focus on a topic and strengthen writing as needed by <b>revising and editing</b> .
3 <sup>rd</sup> Grade: With guidance and support from peers and adults, develop and strengthen writing as needed by <b>planning, revising, and editing</b> . ( <b>Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 3.</b> )
4 <sup>th</sup> Grade: With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and <b>including grade 4.</b> )
5 <sup>th</sup> Grade: With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, <b>rewriting, or trying a new approach</b> . (Editing for conventions should demonstrate command of Language standards 1-3 up to and <b>including grade 5.</b> )

**Standard 6**

**Anchor Standard 6: Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.**

Kindergarten: <b>With guidance and support from adults</b> , explore a variety of <b>digital tools</b> to <b>produce and publish writing</b> , including in <b>collaboration with peers</b> .
1 <sup>st</sup> Grade: With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
2 <sup>nd</sup> Grade: With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
3 <sup>rd</sup> Grade: With guidance and support from adults, use technology to produce and publish writing ( <b>using keyboarding skills</b> ) as well as to interact and collaborate with others.
4 <sup>th</sup> Grade: With some guidance and support from adults, use technology, <b>including the Internet</b> , to produce and publish writing as well as to interact and collaborate with others; <b>demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting</b> .
5 <sup>th</sup> Grade: With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of <b>two pages</b> in a single sitting.

**Research to Build and Present Knowledge****Standard 7**

**Anchor Standard 7: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.**

Kindergarten: <b>Participate in shared research</b> and <b>writing projects</b> (e.g., explore a number of books by a favorite author and express opinions about them).
1 <sup>st</sup> Grade: Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions).
2 <sup>nd</sup> Grade: Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).
3 <sup>rd</sup> Grade: <b>Conduct short research projects that build knowledge about a topic.</b>
4 <sup>th</sup> Grade: Conduct short research projects that build knowledge through <b>investigation of different aspects</b> of a topic.
5 <sup>th</sup> Grade: Conduct short research projects that <b>use several sources</b> to build knowledge through investigation of different aspects of a topic.

**Standard 8**

**Anchor Standard 8: Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.**

Kindergarten: With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
1 <sup>st</sup> Grade: With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
2 <sup>nd</sup> Grade: Recall information from experiences or gather information from provided sources to answer a question.
3 <sup>rd</sup> Grade: Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
4 <sup>th</sup> Grade: Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.
5 <sup>th</sup> Grade: Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.

**Standard 9**

**Anchor Standard 9: Draw evidence from literary or informational texts to support analysis, reflection, and research.**

Kindergarten: N/A
1 <sup>st</sup> Grade: N/A
2 <sup>nd</sup> Grade: N/A
3 <sup>rd</sup> Grade: N/A
4 <sup>th</sup> Grade: Draw evidence from literary or informational texts to support analysis, reflection, and research. Apply grade 4 Reading standards to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions].”) Apply grade 4 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”).
5 <sup>th</sup> Grade: Draw evidence from literary or informational texts to support analysis, reflection, and research. Apply grade 5 Reading standards to literature (e.g., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]”). Apply grade 5 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]”).

**Range of Writing****Standard 10**

**Anchor Standard 10: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.**

Kindergarten: N/A
1 <sup>st</sup> Grade: N/A
2 <sup>nd</sup> Grade: N/A
3 <sup>rd</sup> Grade: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences
4 <sup>th</sup> Grade: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
5 <sup>th</sup> Grade: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

**Conventions of Standard English**  
**Standard 1**

***Anchor Standard 1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking***

Kindergarten:

- a. With guidance and support, identify and write many upper- and lowercase letters, including those in the student's name.
- b. Use frequently occurring nouns and verbs.
- c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., dog, dogs; wish, wishes).
- d. Understand and use question words (interrogatives) (e.g., who, what, where, when, why, how).
- e. Use the most frequently occurring prepositions (e.g., to, from, in, out, on, off, for, of, by, with).
- f. Produce and expand complete sentences in shared language activities.

1<sup>st</sup> Grade:

- a. Independently identify and legibly write all upper- and lowercase letters (legibility is defined as the letter being recognizable to readers in isolation from other letters in a word).
- b. Produce grade-appropriate text using legible writing.
- c. Use common, proper, and possessive nouns.
- d. Use singular and plural nouns with matching verbs in basic sentences (e.g., He hops; We hop).
- e. Use personal, possessive, and indefinite pronouns (e.g., I, me, my; they, them, their, anyone, everything).
- f. Use verbs to convey a sense of past, present, and future (e.g., Yesterday I walked home; Today I walk home; Tomorrow I will walk home).
- g. Use frequently occurring adjectives.
- h. Use frequently occurring conjunctions (e.g., and, but, or, so, because).
- i. Use determiners (e.g., articles, demonstratives).
- j. Use frequently occurring prepositions (e.g., during, beyond, toward).
- k. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.

2<sup>nd</sup> Grade:

- a. Fluently, independently, and legibly write all upper- and lowercase letters.
- b. Produce grade-appropriate text using legible writing.
- c. Understand that cursive is different from manuscript.
- d. Use collective nouns (e.g., group).
- e. Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish).
- f. Use reflexive pronouns (e.g., myself, ourselves).
- g. Form and use the past tense of frequently occurring irregular verbs (e.g., sat, hid, told).
- h. Use adjectives and adverbs, and choose between them depending on what is to be modified.
- i. Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy).

3<sup>rd</sup> Grade:

- a. Independently and legibly write all upper-and lower-case cursive letters.
- b. Produce grade-appropriate text using legible cursive writing.
- c. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences
- d. Form and use regular and irregular plural nouns.
- e. Use abstract nouns (e.g., *childhood*).
- f. Form and use regular and irregular verbs.
- g. Form and use the simple (e.g., *I walked; I walk; I will walk*) verb tenses.
- h. Ensure subject-verb and pronoun-antecedent agreement.
- i. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.
- j. Use coordinating and subordinating conjunctions.
- k. Produce simple, compound and complex sentences.

4<sup>th</sup> Grade:

- a. Fluently, independently, and legibly write all upper and lower case cursive letters.
- b. Produce grade-appropriate text using legible cursive.
- c. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*).
- d. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses.
- e. Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions.
- f. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag rather than a red small bag*).
- g. Form and use prepositional phrases.
- h. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.
- i. Correctly use frequently confused words (e.g., *to, too, two; there, their*).

5<sup>th</sup> Grade:

- a. Maintain legible and fluent cursive writing.
- b. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.
- c. Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses.
- d. Use verb tense to convey various times, sequences, states, and conditions.
- e. Recognize and correct inappropriate shifts in verb tense.
- f. Use correlative conjunctions (e.g., *either/or, neither/nor*).

**Conventions of Standard English**  
**Standard 2**

***Anchor Standard 2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.***

<p>Kindergarten:</p> <ol style="list-style-type: none"> <li>Capitalize the first word in a sentence and the pronoun <i>I</i>.</li> <li>Recognize and name end punctuation.</li> <li>Write a letter or letters for most consonant and short-vowel sounds (phonemes).</li> <li>Spell simple words phonetically, drawing on knowledge of sound-letter relationships.</li> </ol>
<p>1<sup>st</sup> Grade:</p> <ol style="list-style-type: none"> <li>Capitalize <i>dates and names of people</i>.</li> <li>Use end punctuation for sentences.</li> <li>Use commas in <i>dates and to separate single words in a series</i>.</li> <li>Use conventional spellings for words with common spelling patterns and for frequently occurring irregular words.</li> <li>Spell <i>untaught</i> words phonetically, drawing on <i>phonemic awareness and spelling conventions</i>.</li> </ol>
<p>2<sup>nd</sup> Grade:</p> <ol style="list-style-type: none"> <li>Capitalize <i>holidays, product names, and geographic names</i>.</li> <li>Use commas in <i>greetings and closings of letters</i>.</li> <li>Use an <i>apostrophe to form contractions and frequently occurring possessives</i></li> <li>Generalize learned spelling patterns when writing words (e.g., <i>cage - badge; boy - boil</i>).</li> <li>Consult reference materials, including beginning dictionaries, as needed to check and correct spellings</li> </ol>
<p>3<sup>rd</sup> Grade</p> <ol style="list-style-type: none"> <li>Capitalize <i>appropriate words in titles</i>.</li> <li>Use commas in <i>addresses</i>.</li> <li>Use commas and quotation marks in <i>dialogue</i>.</li> <li>Form and use <i>possessives</i>.</li> <li>Use conventional spelling for <i>high- frequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, happiness)</i>.</li> <li>Use spelling patterns and generalizations (e.g., <i>word families, position-based spellings, syllable patterns, ending rules, meaningful word parts</i>) in writing words.</li> <li>Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</li> </ol>
<p>4<sup>th</sup> Grade:</p> <ol style="list-style-type: none"> <li>Use correct capitalization.</li> <li>Use commas and quotation marks to mark <i>direct speech and quotations from a text</i>.</li> <li>Use a comma <i>before a coordinating conjunction in a compound sentence</i>.</li> <li>Spell <i>grade- appropriate words correctly</i>, consulting references as needed.</li> </ol>
<p>5<sup>th</sup> Grade:</p> <ol style="list-style-type: none"> <li>Use <i>punctuation to separate items in a series</i>.</li> <li>Use a comma to separate an <i>introductory element from the rest of the sentence</i>.</li> <li>Use a comma to set off the words <i>yes and no (e.g., Yes, thank you)</i>, to set off a tag question from the rest of the sentence (e.g., <i>It's true, isn't it?</i>), and to indicate <i>direct address (e.g., Is that you, Steve?)</i>.</li> <li>Use <i>underlining, quotation marks, or italics to indicate titles of works</i>.</li> <li>Spell <i>grade- appropriate words correctly</i>, consulting references as needed.</li> </ol>

**Knowledge of Language****Standard 3**

***Anchor Standard 3: Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.***

Kindergarten: (Begins in grade 2)
1 <sup>st</sup> Grade: (Begins in grade 2)
2 <sup>nd</sup> Grade: a. Compare formal and informal uses of English.
3 <sup>rd</sup> Grade: a. Choose words and phrases for effect. b. Recognize and observe differences between the conventions of spoken and written standard English.
4 <sup>th</sup> Grade: a. Choose words and phrases to convey ideas precisely. b. Choose punctuation for effect. c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).
5 <sup>th</sup> Grade: a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.

**Vocabulary Acquisition and Use****Standard 4**

***Anchor Standard 4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.***

Kindergarten: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content. a. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck). b. Use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an unknown word.
1 <sup>st</sup> Grade: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning. b. Use frequently occurring affixes as a clue to the meaning of a word. c. Identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., looks, looked, looking).

2<sup>nd</sup> Grade: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on **grade 2** reading and content, choosing flexibly from an array of strategies.

- a. Use sentence-level context as a clue to the meaning **of a word or phrase**.
- b. **Determine** the meaning of the **new** word **formed when a known prefix is added to a known word** (e.g., *happy/unhappy, tell/retell*).
- c. **Use a known** root word as a clue to the meaning of an unknown word with the same root (e.g., *addition, additional*).
- d. **Use knowledge of the meaning of individual words to predict the meaning of compound words** (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*).
- e. **Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases**.

3<sup>rd</sup> Grade: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on **grade 3** reading and content, choosing flexibly from an array of strategies.

- a. Use sentence-level context as a clue to the meaning of a word or phrase.
- b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat*).
- c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company, companion*).
- d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.

4<sup>th</sup> Grade: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on **grade 4** reading and content, choosing flexibly from an array of strategies.

- a. Use context (e.g., *definitions, examples, or restatements in text*) as a clue to the meaning of a word or phrase.
- b. Use **common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word** (e.g., *telegraph, photograph, autograph*).
- c. **Consult reference materials** (e.g., *dictionaries, glossaries, thesauruses*), both print and digital, to find the **pronunciation and** determine or clarify the precise meaning of key words and phrases.

5<sup>th</sup> Grade: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on **grade 5** reading and content, choosing flexibly from an array of strategies.

- a. Use context (e.g., *cause/ effect relationships and comparisons in text*) as a clue to the meaning of a word or phrase.
- b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*).
- c. Consult reference materials (e.g., *dictionaries, glossaries, thesauruses*), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

**Vocabulary Acquisition and Use**  
**Standard 5**

**Anchor Standard 5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.**

<p>Kindergarten:</p> <ol style="list-style-type: none"> <li>Sort <b>common objects</b> into categories (e.g., <b>shapes, foods</b>) to gain a sense of the concepts the categories represent.</li> <li><b>Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).</b></li> <li>Identify real-life connections between words and their use (e.g., note places at <b>school</b> that are <b>colorful</b>).</li> <li>Distinguish shades of meaning among verbs <b>describing the same general action (e.g., walk, march, strut, prance)</b> by acting out the meanings.</li> </ol>
<p>1<sup>st</sup> Grade:</p> <ol style="list-style-type: none"> <li>Sort <b>words</b> into categories (e.g., <b>colors, clothing</b>) to gain a sense of the concepts the categories represent.</li> <li><b>Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes).</b></li> <li>Identify real-life connections between words and their use (e.g., note places at <b>home</b> that are <b>cozy</b>).</li> <li>Distinguish shades of meaning among verbs <b>differing in manner (e.g., look, peek, glance, stare, glare, scowl)</b> and adjectives <b>differing in intensity (e.g., large, gigantic)</b> by defining or choosing them or by acting out the meanings.</li> </ol>
<p>2<sup>nd</sup> Grade:</p> <ol style="list-style-type: none"> <li>Identify real-life connections between words and their use (e.g., <b>describe foods that are spicy or juicy</b>).</li> <li>Distinguish shades of meaning among <b>closely related verbs (e.g., toss, throw, hurl)</b> and <b>closely related adjectives (e.g., thin, slender, skinny, scrawny)</b>.</li> </ol>
<p>3<sup>rd</sup> Grade:</p> <ol style="list-style-type: none"> <li><b>Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., take steps).</b></li> <li>Identify real-life connections between words and their use (e.g., <b>describe people who are friendly or helpful</b>).</li> <li>Distinguish shades of meaning among related words <b>that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered)</b></li> </ol>
<p>4<sup>th</sup> Grade:</p> <ol style="list-style-type: none"> <li><b>Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture)</b> in context</li> <li><b>Recognize and explain the meaning of common idioms, adages, and proverbs.</b></li> <li><b>Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms)</b></li> </ol>
<p>5<sup>th</sup> Grade:</p> <ol style="list-style-type: none"> <li><b>Interpret figurative language, including similes and metaphors,</b> in context.</li> <li>Recognize and explain the meaning of common idioms, adages, and proverbs.</li> <li><b>Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.</b></li> </ol>

**Vocabulary Acquisition and Use**  
**Standard 6**

***Anchor Standard 6: Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.***

Kindergarten: Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
1 <sup>st</sup> Grade: Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because).
2 <sup>nd</sup> Grade: Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).
3 <sup>rd</sup> Grade: Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).
4 <sup>th</sup> Grade: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).
5 <sup>th</sup> Grade: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition).

**Print Concepts  
Standard 1**

Kindergarten: Demonstrate understanding of the organization and basic features of print. Follow words from left to right, top to bottom, and page-by-page. Recognize that spoken words are represented in written language by specific sequences of letters. Understand that words are separated by spaces in print. Recognize and name all upper and lowercase letters of the alphabet.
1 <sup>st</sup> Grade: Demonstrate understanding of the organization and basic features of print. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
2 <sup>nd</sup> Grade: (Not applicable)
3 <sup>rd</sup> Grade: (Not applicable)
4 <sup>th</sup> Grade: (Not applicable)
5 <sup>th</sup> Grade: (Not applicable)

**Phonological Awareness  
Standard 2**

Kindergarten: Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Recognize and produce rhyming words. Count, pronounce, blend, and segment syllables in spoken words. Blend and segment onsets and rimes of single-syllable spoken words. Isolate and pronounce the initial medial vowel, and final sounds (phonemes) in three phoneme CVC words. (This does not include CVCs ending in /l/, /r/ or /x/.) Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.
1 <sup>st</sup> Grade: Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Distinguish long from short vowel sounds in spoken single-syllable words. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. Segment spoken single - syllable words into their complete sequence of individual sounds (phonemes).
2 <sup>nd</sup> Grade: (Not applicable)
3 <sup>rd</sup> Grade: (Not applicable)
4 <sup>th</sup> Grade: (Not applicable)
5 <sup>th</sup> Grade: (Not applicable)

**Phonics and Words Recognition  
Standard 3**

Kindergarten: Know and apply grade-level phonics and word analysis skills in decoding words. Demonstrate basic knowledge of on-to-one letter sound correspondences by producing the primary or many of the most frequent sound of each consonant. Associate the long and short sounds with common spellings (graphemes) for the five major vowels. Read common high-frequency words by sight (e.g. the, of, to, you, she, my, are, do, does). Distinguish between similarly spelled words by identifying the sounds of the letters that differ.
1 <sup>st</sup> Grade: Know and apply grade-level phonics and word analysis skills in decoding words. Know the spelling-sound correspondences for common consonant digraphs. Decode regularly spelled one-syllable words. Know final –e and common vowel team conventions for representing long vowel sounds. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. Decode two-syllable words following basic patterns by breaking the words into syllables. Read words with inflectional endings. Recognize and read grade-appropriate irregularly spelled words.
2 <sup>nd</sup> Grade: Know and apply grade-level phonics and word analysis skills in decoding words. Distinguish long and short vowels when reading regularly spelled one-syllable words. Know spelling-sound correspondences for additional common vowel teams. Decode regularly spelled two-syllable words with long vowels. Decode words with common prefixes and suffixes. Identify words with inconsistent but common spelling-sound correspondences. Recognize and read grade-appropriate irregularly spelled words.

3 <sup>rd</sup> Grade: Know and apply grade-level phonics and word analysis skills in decoding words. Distinguish long and short vowels when reading regularly spelled one-syllable words. Know spelling-sound correspondences for additional common vowel teams. Decode regularly spelled two-syllable words with long vowels. Decode words with common prefixes and suffixes. Identify words with inconsistent but common spelling-sound correspondences. Recognize and read grade-appropriate irregularly spelled words.
4 <sup>th</sup> Grade: Know and apply grade-level phonics and word analysis skills in decoding words. <b>Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.</b>
5 <sup>th</sup> Grade: Know and apply grade-level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

### Fluency Standard 4

Kindergarten: <b>Read emergent reader texts with purpose and understanding.</b>
1 <sup>st</sup> Grade: Read <b>with sufficient accuracy and fluency to support comprehension. Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</b>
2 <sup>nd</sup> Grade: Read with sufficient accuracy and fluency to support comprehension. Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
3 <sup>rd</sup> Grade: Read with sufficient accuracy and fluency to support comprehension. Read on-level text with purpose and understanding. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
4 <sup>th</sup> Grade: Read with sufficient accuracy and fluency to support comprehension. Read on-level text with purpose and understanding. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
5 <sup>th</sup> Grade: Read with sufficient accuracy and fluency to support comprehension. Read on-level text with purpose and understanding. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

# SALTA Materials English Language Arts

## **CORE**

All SALTA students are taught the Utah **Core** standards. Core standards are evidence-based, aligned with expectations for success in college and the workplace, and will allow students to compete internationally. The new standards stress rigor, depth, clarity, coherence, and 21<sup>st</sup> century skills, to prepare students for college and careers.

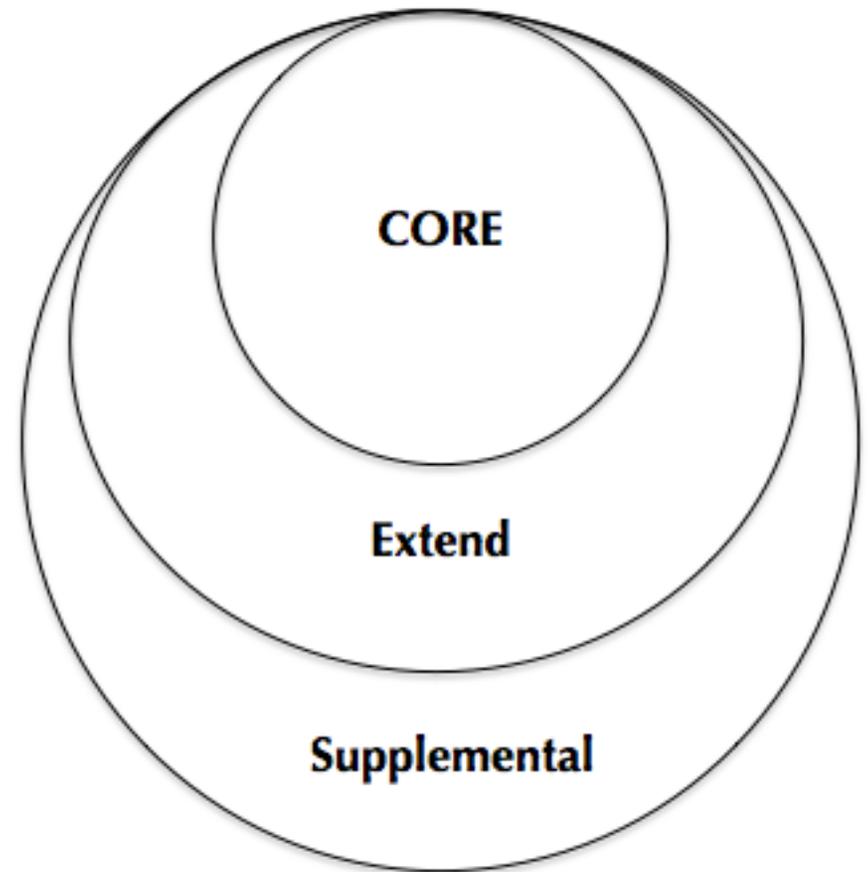
## **EXTEND**

Extension of core standards provides students with activities that are added to **CORE** to enlarge or deepen understanding. Examples of **EXTEND** include:

- Reading Street w/Research & Inquiry Skills (R&I Skills)
- Project-Based Learning (PBL)
- Extended Learning Opportunities (ExLO)

## **SUPPLEMENTAL**

Supplemental resources are materials and activities in addition to ones found in **EXTEND** and **CORE**. Junior Great Books are the supplemental materials for SALTA English Language Arts.



# SALTA CSD 3<sup>rd</sup> – 5<sup>th</sup> Grade Literacy Block

Literacy Component	Range of Time	Class Configuration	Focus of Instruction	
<b>Reading</b>	45-60 minutes	Whole Group Cooperative Groups & Partners	<ul style="list-style-type: none"> <li>• Concept Development</li> <li>• Oral Vocabulary</li> <li>• Phonics</li> <li>• Word Study</li> </ul>	
<b>Language Arts</b>	30-45 minutes	Whole Group Cooperative Groups & Partners	<ul style="list-style-type: none"> <li>• Comprehension</li> <li>• Lesson Vocabulary</li> <li>• Grammar</li> <li>• Writing</li> </ul>	
<p style="text-align: center;"><b>Skill-Based Instruction</b></p> <p>Additional instruction with teacher in <b>Higher Order Thinking and Questioning</b> while students engage in Practice Stations and/or independent activities for research, inquiry, writing and 21<sup>st</sup> Century skills.</p>	45-60 minutes  10-15 minutes per group	<i>Teach and Model Practice Stations</i>		
		Small Groups	Focus of Instruction	Instructional Materials
		<p style="text-align: center;"><b>Group 1</b></p> <p>Accurate &amp; Benchmark Rate</p> <p>Met benchmark on DORF and accurate in Fall 95%, Winter 96%, Spring 98%</p>	<p><b>Comprehension</b></p> <ul style="list-style-type: none"> <li>• Monitoring for meaning</li> <li>• Identifying, summarizing, and extending main ideas</li> <li>• Self-monitoring and fix-up strategies and awareness of reading for understanding</li> <li>• Teaching important words directly and word-learning strategies</li> <li>• Extended reading and writing opportunities tied to Core subjects</li> <li>• <i>Inquiry based questioning based on Hess' Cognitive Rigor Matrix (Revised Bloom and DOK)</i></li> </ul>	<ul style="list-style-type: none"> <li>• Literary and Informational Text</li> <li>• Reading Street Small Group: <i>Advanced Level lessons</i></li> <li>• Word Study (vocabulary, derivations, etc.)</li> <li>• Reading Street: Research and Inquiry Lessons</li> <li>• <i>Junior Great Books</i></li> <li>• <i>Extended Learning Opportunities</i></li> <li>• <i>Research and Inquiry</i></li> <li>• <i>Writing Process Writing Projects</i></li> <li>• <i>Project-based Learning.</i></li> </ul>
		<p style="text-align: center;"><b>Group 2</b></p> <p>Accurate &amp; Below Benchmark Rate</p> <p>Below benchmark on DORF and accurate in Fall 95%, Winter 96%, Spring 98%</p>	<p><b>Fluency</b></p> <ul style="list-style-type: none"> <li>• Building automaticity, but do not ignore making meaning</li> <li>• Repeated readings</li> <li>• Word or phrase level automaticity in addition to passages, if necessary</li> <li>• Grouping words to make meaning, pacing punctuation</li> <li>• Read for main idea, summarizing, and/or text elements</li> <li>• Identify skill deficits and areas of targeted instruction</li> </ul>	<ul style="list-style-type: none"> <li>• Reading Street: Decodable Readers</li> <li>• Reading Street: Fluency passages</li> <li>• Reading Street: Fresh Reads</li> <li>• Reading Street Small Group: On-Level lessons</li> <li>• Sight Words/Fry Phrases Speed Drills</li> <li>• Reading Street: RtI Kit Fluency</li> </ul>
		<p style="text-align: center;"><b>Group 3</b></p> <p>Inaccurate &amp; Benchmark Rate</p> <p>Met benchmark on DORF and accurate in Fall 95%, Winter 96%, Spring 98%</p>	<p><b>Digging Deeper into Needs</b></p> <ul style="list-style-type: none"> <li>• Explicit modeling of accurate reading</li> <li>• Self-monitoring—table tap when student makes an error. This will help the student slow down and read more accurately.</li> <li>• Challenge student to read a portion of the text with 2 or fewer errors</li> <li>• Teach student to adjust rate of reading to type of text and purpose for reading</li> </ul>	<ul style="list-style-type: none"> <li>• Reading Street: Decodable Readers</li> <li>• Reading Street: Phonics and Word Analysis</li> <li>• Reading Street Small Group: Strategic Intervention lessons (SI)</li> <li>• Reading Street: Fresh Reads</li> </ul>
<p style="text-align: center;"><b>Group 4</b></p> <p>Inaccurate &amp; Below Benchmark Rate</p> <p>Below benchmark on on DORF and less than Fall 95%, Winter 96%, Spring 98% accuracy</p>	<p><b>Phonics and/or Phonological Awareness</b></p> <ul style="list-style-type: none"> <li>• Missing phonemic awareness skills</li> <li>• Missing decoding skills</li> <li>• Missing sight words skills</li> <li>• Missing multi-syllabic decoding skills</li> <li>• Applying skills to connected text at instructional level</li> <li>• Building fluency at independent level</li> <li>• Substantial practice applying phonics to new text and writing</li> <li>• <i>Use If-Then Guide for Phonemic Awareness and/or Phonics and Decoding</i> to identify skill deficits and areas of targeted instruction</li> </ul>	<ul style="list-style-type: none"> <li>• Reading Street Decodable Readers</li> <li>• Reading Street Phonics and Word Analysis</li> <li>• Reading Street Small Group: Strategic Intervention lessons (SI)</li> <li>• Florida Center on Reading Research (FCRR)—Phonemic Awareness and Phonics Activities</li> <li>• Reading Street: RtI Kit Phonemic Awareness and/or Phonics and Decoding</li> <li>• Sight Words/Fry Phrases Speed Drills</li> </ul>		
<b>Content Integration</b>	20-30 minutes	Whole Group Content Reading Groups	<p><b>Research and Inquiry</b></p> <ul style="list-style-type: none"> <li>• Accessing informational and literary text in content areas</li> <li>• Writing in the content areas (application of reading)</li> </ul>	

### Grade 3: Five-Day Plan for *Reading Street*

Literacy Block Component		Day 1	Day 2	Day 3	Day 4	Day 5		
25-45 minutes	Get Ready to Read Content Knowledge	<b>Content Knowledge</b> • Street Rhymes! • Concept Talk • Question of the Week • Build Oral Language • Concept Map <b>10 min.</b>	<b>Content Knowledge</b> • Expand the Concept • Question of the Week • Build Oral Language <b>5 min.</b>	<b>Content Knowledge</b> • Expand the Concept • Question of the Week • Build Oral Language • Write about and respond to the Question of the Week <b>5 min.</b>	<b>Content Knowledge</b> • Expand the Concept • Question of the Week • Build Oral Language <b>5 min.</b>	<b>Content Knowledge</b> • Review Concept • Question of the Week • Build Oral Language • Review Amazing Words & Concept Map <b>10 min.</b>		
		<b>Build Oral Vocabulary</b> • Amazing Words • Vocab Routine • Teacher Read Aloud <b>10 min.</b>	<b>Build Oral Vocabulary</b> • Amazing Words • Vocab Routine • Add to Concept Map <b>10 min.</b>	<b>Build Oral Vocabulary</b> • Amazing Words • Vocab Routine • Add to Concept Map <b>5 min.</b>	<b>Build Oral Vocabulary</b> • Amazing Words • Vocab Routine • Add to Concept Map <b>5 min.</b>	<b>Build Oral Vocabulary</b> • Amazing Words • Vocab Routine • Add to Concept Map <b>5 min.</b>	20 min	<b>Build Oral Vocabulary</b> • Write About It (question of the week or four square)
		<b>Word Analysis/Phonics</b> • Teach/Model • Guide Practice • Apply <ul style="list-style-type: none"> <li>○ I Can Read</li> </ul> <b>15 min.</b>	<b>Word Analysis/Phonics</b> • Review • Read Words in Isolation • Read Words in Context <b>10 min.</b>	<b>Word Analysis/Phonics</b> • Model Word Sorting • Guide Practice • Fluent Word Reading <b>15 min.</b>	<b>Word Analysis/Phonics</b> <b>Fluent Word Reading</b> <b>Spiral review</b> <b>10 min.</b>			
		<b>Decodable Reader</b> • Reread for Fluency <b>10 min.</b>		<b>Decodable Reader</b> <b>15 min</b>	<b>Fluent Word Reading</b> <b>Decodable Reader</b> <b>15 min</b>	<b>Science in Reading or Social Studies in reading or 21<sup>st</sup> Century Skills</b> <b>10 min</b>		

### Grade 3: Five-Day Plan for *Reading Street*

Literacy Block Component		Day 1	Day 2	Day 3	Day 4	Day 5
30-45 min.	Read and Comprehend Text-Based Comprehension	<b>15 min.</b> <b>Text-Based Comprehension</b> <ul style="list-style-type: none"> <li>Target Skill &amp; Strategy</li> <li>Model A Close Read</li> <li>Model Fluent Reading</li> </ul>	<b>15 min.</b> <b>Vocabulary Skill Reread for Fluency</b>	<b>30 min.</b> <b>Text Based Comprehension</b> <ul style="list-style-type: none"> <li>Check Understanding Retell</li> </ul> <b>Main Selection</b> <ul style="list-style-type: none"> <li>Access the Main Selection</li> <li>Close Read the Main Selection</li> </ul> <b>Think Critically</b> <ul style="list-style-type: none"> <li>Choose 1-3 questions to discuss and write</li> </ul>	<b>30 min.</b> <b>Read (paired selection)</b> <ul style="list-style-type: none"> <li><b>Access the Text</b></li> <li><b>Close Reading</b></li> <li>Reading and Writing Across Texts (<i>Writing to Sources</i>)</li> </ul> <b>Fluency Vocabulary Speaking and Listening</b>	<b>10 min.</b> <b>Review: Text-Based Comprehension</b>  <b>Vocabulary</b>  <b>Phonics/Word Analysis</b>
		<b>15 min.</b> <b>Selection Vocabulary</b> <ul style="list-style-type: none"> <li>Vocabulary Routine</li> </ul>	<b>25 min.</b> <b>Text-Based Comprehension</b> <ul style="list-style-type: none"> <li>Introduce Main Selection</li> </ul> <b>Main Selection</b> <ul style="list-style-type: none"> <li>Access the Main Selection</li> <li>Close Read the Main Selection</li> </ul>			

**Grade 3: Five-Day Plan for *Reading Street***

Literacy Block Component		Day 1	Day 2	Day 3	Day 4	Day 5
30-45 minutes	Language Arts	<b>15 min. Conventions/Grammar</b> <ul style="list-style-type: none"> <li>Conventions lesson</li> </ul>	<b>15 min. Conventions/Grammar</b> <ul style="list-style-type: none"> <li>Conventions lesson</li> <li>Grammar Jammer</li> </ul>	<b>Conventions/Grammar embedded into Authentic Writing Instruction</b>		
		<b>15 min. Spelling/Word Study</b> <ul style="list-style-type: none"> <li>Introduce Spelling on Day 2 with Day 1 lesson</li> </ul> <i>Handwriting—Model, Practice, and Monitor within Word Study</i>	<b>15 min. Spelling/Word Study</b> <ul style="list-style-type: none"> <li>5-7 word check on Spelling Patterns with Routine Card #7 from Rtl Kit</li> <li>Handwriting—<i>Model, Practice, and Monitor within Word Study</i></li> </ul>	<b>10 min. Spelling/Word Study</b> <ul style="list-style-type: none"> <li>5-7 word check on Spelling Patterns with Routine Card #7 from Rtl Kit</li> <li>Handwriting—<i>Model, Practice, and Monitor within Word Study</i></li> </ul>	<b>10 min. Spelling/Word Study</b> <ul style="list-style-type: none"> <li>Student Generated Word Sort based on the Spelling pattern (Practice Station)</li> </ul>	<b>10 min. Spelling/Word Study</b> <ul style="list-style-type: none"> <li>Spelling Post-Test of 10-12 words</li> </ul>
		<b>Writing</b> <ul style="list-style-type: none"> <li>Focus on writing to learn embedded in instruction</li> <li>Begin product writing on Day 3</li> </ul>	<b>Writing</b> <ul style="list-style-type: none"> <li>Focus on writing to learn embedded in instruction</li> <li>Begin product writing on Day 3</li> </ul>	<b>25-30 min. Writing</b> <ul style="list-style-type: none"> <li>Writing to Sources Lesson</li> <li>Include Four-Square Writing Strategy</li> <li><b>Embedded Conventions Lesson</b></li> </ul>	<b>30-35 min. Writing</b> <ul style="list-style-type: none"> <li>Writing to Sources Lesson</li> <li>Include Four-Square Writing Strategy</li> <li><b>Embedded Conventions Lesson</b></li> </ul>	<b>30 min. Writing</b> <ul style="list-style-type: none"> <li>Writing to Sources Lesson</li> <li>Include Four-Square Writing Strategy</li> <li><b>Embedded Conventions Lesson</b></li> </ul>

### Grade 3: Five-Day Plan for *Reading Street*

Literacy Block Component	Day 1	Day 2	Day 3	Day 4	Day 5
<p><b>Skill-Based Practice Stations</b> Small Group</p> <p>45-60 minutes</p> <p><i>Suggestions for what the other students are doing</i></p>	<p><b>Practice Stations</b></p> <ul style="list-style-type: none"> <li>• Social Studies and/or Science Connections</li> <li>• <b>Extended Learning Opportunities</b></li> <li>• Practice Station Flipcharts</li> <li>• Writing Assignments</li> <li>• Project-Based Learning Projects</li> <li>• Research and Inquiry Activities</li> <li>• Keyboarding Practice</li> <li>• Targeted Reading with Aligned Purposes and Tasks</li> <li>• Imagine Learning for ELL level 1 or 2 (60-75 min per week)</li> <li>• Reflex Math</li> <li>• Technology Supports—Apps, Websites, etc.</li> <li>• Lexia <b>or</b> Reading Plus <b>or</b> MyON (60 minutes per week)</li> </ul>				
	<p style="text-align: center;"><b>Practice Station Ideas that Correlate with the Day's Instruction</b></p>				
	<ul style="list-style-type: none"> <li>• Reread Decodable for Fluency Practice</li> <li>• Handwriting Practice</li> <li>• Daily Fix It</li> </ul>	<ul style="list-style-type: none"> <li>• Reader's &amp; Writer's Notebook Vocabulary Page</li> </ul>	<ul style="list-style-type: none"> <li>• RWN Grammar and Conventions</li> <li>• Think Critically Questions (SE)</li> <li>• <b>Research and Inquiry</b></li> </ul>	<ul style="list-style-type: none"> <li>• Teacher-Created Word Sorts</li> <li>• Handwriting Practice Sheet</li> <li>• Strategy Response Log</li> <li>• <b>Research and Inquiry Student Generated Word Sorts</b></li> </ul>	<ul style="list-style-type: none"> <li>• Fluency Check with a Buddy using Fresh Reads/Assessment Handbook Fluency Passages</li> </ul>

Literacy Block Component	Description	Resources
<p><b>Content Integration</b> See <b>Content Integration Map</b> Small Group Whole Group</p> <p>20-30 minutes</p>	<p>Content integration time in the ELA Block deals with integration of science and social studies content to understand key concepts, principles, generalizations, and theories through the integration of the English Language Arts Standards.</p> <p>The Utah Core states: "By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades. Students also acquire the habits of reading independently and closely, which are essential to their future success."</p> <p>Optimally, this portion of the day involves students reading, writing, listening and speaking about the topics they are learning about in science and social studies instruction time. Teachers can use this time to provide background knowledge and learning activities to prepare their students for their Science/Social Studies instruction. Ideas and resources for integration can be found in your Content Integration Map.</p>	<p>Reinforce/Expand/Extend the Concept</p> <ul style="list-style-type: none"> <li>• Content Leveled Readers (SE)</li> <li>• eReaders (digital)</li> </ul> <p><b>Research and Inquiry</b></p> <ul style="list-style-type: none"> <li>• Identify and Focus Topic</li> </ul> <p><b>Science/Social Studies</b></p> <ul style="list-style-type: none"> <li>• Set the stage for Lab or Learning Task</li> </ul>

## Intensified Routines

### **Purpose:**

The following routines increase instructional intensity in key academic skills: background knowledge, vocabulary, fluency, and comprehension. In addition to the key areas identified in the Intensified Plan, scaffolding considerations should be made throughout the general 5-Day Plan to provide students with more robust core instruction that support **all** learners. These routines can also be used as scaffolds to increase intensity for students with low language or language acquisition. The routines on the following pages should be used to supplement both the Intensified Plan and the general 5-Day Plan.

### **Areas of Academic Skills**

#### **Concept Talk Intensified Routine: *Think, Discuss, Write, Read, & Share***

The following routine is an enhancement to the instruction provided in Reading Street related to concept talk, which includes the ELL poster, the concept talk video and the concept map.

Example Reading Street pre-made sentence frames can be found at:

[http://www.californiareading.com/languagecentralk6/sentence\\_frames.html](http://www.californiareading.com/languagecentralk6/sentence_frames.html) Although these sentence frames are for the Reading Street 2009 edition, many of them will still apply.

#### **Think, Discuss, Write, Read, Share**

	<b>Instructional Plan</b>	<b>Resources</b>
<b>Think</b>	Present the big idea and question of the week and introduce the new concept. Then, ask students to brainstorm and/or complete a quick sketch or write of their ideas related to the question posed.	ELL Poster Concept Board Concept Talk Video
<b>Discuss</b>	Have students partner share their ideas using an intentional structure.	Partner Routines
<b>Write</b>	Next, have students complete a teacher provided <a href="#">sentence frame</a> related to the question with a written response, include a word bank as needed.	Teacher prepared sentence frame (and word bank)
<b>Read</b>	Ask students to read sentence to their partner.	Partner Routine
<b>Share</b>	Cold call or nominate a few students to share their ideas and encourages use of the <a href="#">academic language scripts</a> .	Targeted Academic Language Script

### **Academic Vocabulary**

Academic vocabulary is composed of words and phrases found in all academic texts, such as *analysis, attribute, contrast, discussion, however, and in particular*, and is the cornerstone of academic discussions leading to higher levels of language. Academic vocabulary should be used with speaking, listening, reading and writing of text. Academic vocabulary should be the regular language of the classroom; used by both teachers and students. More information regarding academic vocabulary may be found in the introductory pages of the curriculum map.

### **Vocabulary**

Following the 5-day intensified plan explicitly teach 3-4 of the weekly lesson tested vocabulary words using the [lesson vocabulary template](#) included in this map. The template explicitly provides students with opportunities to hear, speak, see, sketch, and use the words in context. This gives struggling students the multiple exposures they may require to master the new vocabulary.

## Tested Vocabulary Review

The intensified plan includes a short vocabulary review on Day 5. For this review, use the questions or sentences from the weeks tested vocabulary instruction as a short, cumulative review of the words to provide additional exposure. Students can refer to the concept board for the vocabulary words.

## ELL Poster

Use the ELL poster to build lesson-tested vocabulary and provide opportunities to access academic language with language learners.

	Instructional Plan	Scaffolding Opportunities
<b>Day 1</b> <i>Done with Concept Talk</i>	<b>Poster Talk Through</b> —use the lesson vocabulary and use the talk through script to demonstrate and show the pictorial representations of the lesson vocabulary.	<b>Check prior knowledge</b> by asking questions directed to language and differentiated levels. <b>Develop concepts and oral vocabulary</b> by rereading <b>Poster Talk Through</b>
<b>Day 2</b>	<b>Teach Lesson Vocabulary</b> — intentionally teach lesson vocabulary. Have students orally practice saying and using the lesson words.	<ul style="list-style-type: none"> <li>• Sentence Frames</li> <li>• Precision Partnering</li> <li>• Sketching of concept with oral language</li> <li>• Word Banks</li> <li>• Picture Banks</li> </ul>
<b>Day 3</b> <i>ELL poster day 4</i>	<b>Produce Oral Language</b> — intentional and deliberate oral practice of lesson vocabulary. Reinforce correct usage of the lesson vocabulary words.	<ul style="list-style-type: none"> <li>• Sentence Frames</li> <li>• Precision Partnering</li> <li>• Sketching of concept with oral language</li> <li>• Word Banks</li> <li>• Picture Banks</li> </ul>

## Build Background

	Instructional Plan	Teacher Talk Example
<b>Step 1</b>	Introduce the story and the main topic.	"Today, we are going to read a story about a man who collects rocks."
<b>Step 2</b>	Use audiovisual supports e.g., short video obtained from the web, realia, podcast, or song.(5 minutes or less)	"Let's first watch a video about rock collecting to learn more about the process."
<b>Step 3</b>	Have students answer the questions outlined in the Teacher's Edition (under Build Background) using response frames related to the question prompts.	Teacher provides a related response frame such as: An example of a special talent is _____. Teacher asks: What is an example of a special talent?"
<b>Step 4</b>	Have students listen to the Background Building Audio CD selection and provide them with a purpose for listening.	"As you listen, be sure to listen for how the rock collector selects and organizes his rocks." Follow up with a short discussion related to the purpose.

## Prereading Strategies

Use the instruction in your teacher's manual to introduce the genre, set the purpose, make predictions, and align to the week's comprehension strategy or skill. Additionally, include the strategy response log as a before and during reading tool to help students monitor their comprehension. Before reading, provide students with a summary overview of the text. This will support them in comprehending the selection at higher levels.

### Decodable Reader Intensified Routine

In preparation for reading the decodable reader, the teacher previews the text by summarizing the main events or information in the text prior to students reading the text.

After reading the decodable the 1<sup>st</sup> time aloud as a class, provide students with additional opportunities to reread the text to increase student automaticity. This can be done during practice stations, ELD time or small group work with partners matched precisely using the Tell, Ask, Start Again Routine.

#### Tell, Ask, Start Again Routine

1. Tell: "That word is \_\_\_\_\_"
2. Ask: "What word?"
3. Start Again: "Start the sentence again."

Upon finishing 2<sup>nd</sup>/3<sup>rd</sup> read, have partners retell the story to each other. Below are possible questions for expository and narrative texts.

Expository	Narrative
<ul style="list-style-type: none"><li>• What was the story mostly about?</li><li>• What is one thing I learned?</li><li>• What else did I learn?</li></ul>	<ul style="list-style-type: none"><li>• Who are the characters?</li><li>• Where did the story happen?</li><li>• What happened first?</li><li>• What happened next?</li><li>• What happened last?</li></ul>

<b>Read Aloud routine</b>		
<b>Teacher Roles</b>	<b>Students' Role</b>	<b>Examples</b> <i>(3<sup>rd</sup> grade Gallagher's Picnic)</i>
Teach Amazing Words <ul style="list-style-type: none"> <li>• Provide examples, images, gestures and sentence frames</li> </ul>	Say, see, write, hear amazing words <ul style="list-style-type: none"> <li>• Act out, write or say amazing words in sentences using sentence frames</li> </ul>	Amazing word: cringed  Act out the word  When I see a _____ it makes me want to cringe.
Read Story Aloud <ul style="list-style-type: none"> <li>• Model appropriate expression</li> <li>• Demonstrate a lively, fluent reader</li> </ul>	Be an active listener <ul style="list-style-type: none"> <li>• Eyes on the teacher</li> <li>• KYHFOOTY</li> <li>• Do actions for punctuation</li> </ul>	"Come join our picnic!"  Students put one arm up and a fist for a dot to represent an exclamation point
Pause to think aloud <ul style="list-style-type: none"> <li>• Use a think aloud voice, gesture or clue</li> </ul>	Identify think aloud <ul style="list-style-type: none"> <li>• Gesture when you hear the teacher think aloud</li> </ul>	Point to your head to demonstrate thinking
Comprehensible input <ul style="list-style-type: none"> <li>• Use actions and gestures to portray meaning</li> <li>• Display an image representing the big idea of the story</li> </ul>	Non verbal student feedback to teacher <ul style="list-style-type: none"> <li>• Gesture or raise your hand when very confused</li> </ul>	"He cringed to see Gallagher eat such awful food."  Act out what cringing looks like
Point out amazing words <ul style="list-style-type: none"> <li>• Use amazing word voice, gesture or clue</li> </ul>	Listen for amazing words <ul style="list-style-type: none"> <li>• Gesture or speak when you hear an amazing word</li> </ul>	Stand up when you hear an amazing words  Say "amazing" and then the word when you hear an amazing word
Comprehension Check <ul style="list-style-type: none"> <li>• Ask clarifying questions</li> <li>• Ask for predictions</li> <li>• Make connections</li> <li>• Use sentence frames</li> </ul>	Partner Share <ul style="list-style-type: none"> <li>• Look, lean, lower, listen</li> <li>• Say or write complete sentences using sentence frames</li> </ul>	"What could Rafferty's plan be to help Gallagher kick his bad habit"  Sometimes I eat _____ and it makes me feel _____

## Fluency Reading Routine

<b>Build Fluency</b> <b>Reading with appropriate rate, accuracy, pronunciation, and expression/prosody</b>	
<b>Cloze Reading Preparation:</b> Before class teacher prepares a selection	<ul style="list-style-type: none"> <li>• <b>Chunk text</b> into manageable segments (i.e., use digital projection, text book)</li> <li>• <b>Number the text segments</b>—Students can number using sticky notes/flags</li> <li>• <b>Select 3-5 words per segment</b> (approximately 1 per sentence) to omit as you read aloud. Select words you have pre-taught or words that are meaningful to the content.</li> </ul>
<b>1<sup>st</sup> Read:</b> Oral Cloze— • Shared Reading • Teacher Models (I do)	Use the prepared text excerpt to <b>model fluent reading</b> that sounds like natural speech, at an appropriate pace, pronouncing words accurately, pausing at the end of phrases, interpreting punctuation, and using expression. If text is relatively brief, read the entire text. If it is fairly long and complex, break it into manageable chunks and only read one major chunk at a time. <b>Students track.</b>
<b>2<sup>nd</sup> Read:</b> Echo Reading with Phrasing (we do)	<b>Read</b> one chunk at a time. Practice appropriate phrasing using <b>choral reading</b> . Break a sentence into logical phrases and read one phrase at a time, before connecting the phrases. Have <b>students echo read each phrase</b> then connect it, following your lead.
<b>3<sup>rd</sup> Read:</b> Partner Read (ya'll do)	Strategically partner students for <b>fluency practice</b> . Students should be prepared to discuss the <b>main idea</b> after finishing reading the text. Provide a <b>response frame</b> with appropriate standards-based reading comprehension language (e.g., The information in this passage is about _____. This biography focuses on _____.)
<b>4<sup>th</sup> Read:</b> Independent Silent Reading (you do)	Before students begin to independently silent read, assign a comprehension task for the same passage (e.g., "Identify two important details the author emphasizes about _____.") <i>verbal or written</i>

*Adapted from Kate Kinsella, Ed. D. 2011, Instructional Routine; building Fluency Before Text Comprehension.*

### FLUENCY EXPRESSION RUBRIC

	1	2	3	4
<b>Expression and Volume</b>	Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend.	Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend.	Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend.	Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage.
<b>Phrasing</b>	Reads word-by-word in a monotone voice.	Reads in two or three word phrases, not adhering to punctuation, stress and intonation.	Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation.	Reads with good phrasing; adhering to punctuation, stress and intonation.
<b>Smoothness</b>	Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage.	Reads with extended pauses or hesitations. The reader has many "rough spots."	Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures.	Reads smoothly with some breaks, but self-corrects with difficult words and/or sentence structures.
<b>Pace</b>	Reads slowly and laboriously.	Reads moderately slowly.	Reads fast and slow throughout reading.	Reads at a conversational pace throughout the reading.

The purpose of the Fluency Expression Rubric is to provide feedback to students on the pillars of fluency: expression (*prosody*), phrasing, smoothness, and pace.

Scores of 10 or more indicate that the student is making good progress in fluency.

Score \_\_\_\_\_

Scores below 10 indicate that the student needs additional instruction in fluency.

Rubric modified from Tim Rasinski – [Creating Fluent Readers](#)

## Response Frames

### A Response frame is:

- different from a sentence stem or frame
- structured topic related scaffold
- carefully and explicitly targets language forms
- provides the opportunity to learn language form in context

<b>Response Frame:</b>	<i>A partner demonstrates active listening when she/he <u>verb+s</u> and <u>verb+s</u></i>													
<b>Model Response:</b>	<i>A partner demonstrates active listening when she <u>restates</u> my idea and <u>asks</u> clarifying questions.</i>	<table border="1"> <thead> <tr> <th><u>Casual Verbs</u></th> <th><u>Precise Verbs</u></th> </tr> </thead> <tbody> <tr> <td>says</td> <td>replies</td> </tr> <tr> <td>likes</td> <td>responds</td> </tr> <tr> <td>lets</td> <td>appreciates</td> </tr> <tr> <td>helps</td> <td>complements</td> </tr> <tr> <td></td> <td>permits</td> </tr> </tbody> </table>	<u>Casual Verbs</u>	<u>Precise Verbs</u>	says	replies	likes	responds	lets	appreciates	helps	complements		permits
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Adapted from Kate Kinsella, Ed. D. 2011, *Instructional Routine: building Fluency Before Text Comprehension*.

## Multisyllabic Word Routine

1. When we come to a word we do not know we read word parts. We have to use what we know about sound spellings to help us read the word
2. First, let's underline the vowels  
fantastic
3. How many syllables does this word have? (*vowel for every syllable*)
4. Let's read the syllables



5. What are the vowel sounds?
  - The vowel is short because it is a closed syllable (fantastic)
  - The vowel is long because . . .
    - it is a vowel pair (steamboat)
    - it is a VCE (milestone)
    - it is an open syllable (silo)
  - The vowel is r-controlled because it is followed by an r (barnyard)
  - The e is silent because it is final syllable after a consonant. (stumble)
6. Let's blend and read the whole word  
fantastic

## CLOSE READING ROUTINE

**Teacher selects short robust passage from the main selection and plans ahead by reading, annotating and preparing text-dependent questions** See *Close Reading in Elementary Schools* (Fisher & Frey, 2012)

- Purposefully plan a close read:
- Pick a text excerpt that is short, has some element of complexity (language, structure or task) and is worthy of multiple readings
- Plan the purpose for close reading the text selection (e.g., vocabulary, understanding main ideas, record similarities and differences between . . .)
- Grades K-2, teacher reads aloud initially, annotates wholly or guides student annotation. Students may or may not eventually read independently, depending on text difficulty (e.g., Wizard of Oz in Kindergarten.)
- Grades 3-12, students read independently beginning with first reading, and annotate with increased independence. Readers who cannot initially read independently may be read to, or may encounter the text previously during scaffolded small group reading instruction.

Student Roles	Teacher Roles
 <p><b>Step 1: First READ</b> Students read and annotate</p>  <p><b>Step 2: Strategic Partnered Academic Discussion</b></p>  <p><b>Step 3: Quick Write or Share Out--</b> What are the Key Ideas and Details about the text? What did you learn?</p>  <p><b>Step 4: Second READ</b> Students track and follow along with the teacher think aloud, annotating as appropriate</p>  <p><b>Step 5: Third READ</b> Reread text to find answers to questions and cite and annotate text evidence.</p>  <p><b>Step 6: Strategic Partnered Academic Discussion</b></p>  <p><b>Step 7: Write about it!</b> Students write responses to a teacher provided prompt.</p>	<p><b>Step 1:</b> Teacher provides a <b>purpose and a structure, for note-taking and/or annotating text.</b></p> <ul style="list-style-type: none"> <li>• Teacher observes where students struggle.</li> </ul> <p><b>Step 2:</b> Teacher provides <b>question stem(s) or sentence frame(s)</b> to guide partner interaction.</p> <p><b>Step 3:</b> Teacher provides question(s) that address <b>key ideas and details</b> of the text, <b>confusing words</b>, general understanding. Students share out or quick write their responses.</p> <ul style="list-style-type: none"> <li>• Narrative—characters, setting, plot sequence or summary</li> <li>• Expository—Main idea and details or summary</li> </ul> <p><b>Step 4:</b> Teacher led shared reading with think aloud incorporating reading strategies for student engagement. Stop reading periodically to explain your thinking as you resolve difficult words using structural or context clues.</p> <ul style="list-style-type: none"> <li>• Model</li> <li>• Choral</li> <li>• Cloze</li> <li>• Echo</li> </ul> <p>Teacher focuses <b>craft and structure text dependent questions with the think aloud model.</b></p> <ul style="list-style-type: none"> <li>• Word or phrase meanings e.g., academic, literal, nonliteral</li> <li>• Point of view</li> </ul> <p><b>Step 5:</b> Teacher uses purposeful, planned <b>text dependent questions</b> to:</p> <ul style="list-style-type: none"> <li>• Prompt rereading</li> <li>• Encourage the use of textual evidence in supporting answers</li> </ul> <p>Teacher focuses on <b>integration of knowledge and ideas</b> for students to describe and explain logical connections, reasons with evidence, mood or themes, opinions, intertextual connections, inferences and point of view.</p> <p><b>Step 6:</b> Teacher provides <b>question stem(s) or sentence frame(s)</b> to guide partner interaction.</p> <p><b>Step 7:</b> Teacher provides <b>format for final response</b> and facilitates students with scaffolds as necessary for success. (e.g., a summary in a foursquare, short constructed response, and/or paragraph frame.)</p>

## K-5 Retelling/Summarizing: Nonfiction

	<b>Instructional Plan</b>	<b>Teacher Talk Example</b>
<b>Explain</b>	Explain why we summarize/retell.	<i>“To summarize a text means telling what it was about. A summary only includes the main ideas and key details, NOT all details. You want to re-create the text using your own words. This will help you understand the text better.”</i>
<b>Build Background</b>	Review nonfiction text to deepen understanding of important concepts.	<i>“Let’s quickly review our concept map to activate our prior knowledge. “When I summarize, I ask myself, what is this text mainly about? This text is mainly about _____.”</i>
<b>Model</b>	Present retell cards in sequence. Summarize/retell key events (where appropriate emphasize comprehension targeted skill).	<i>“Listen carefully as I summarize, I will tell what happened but will not include every detail we read.”</i>
<b>Think</b>	Offer additional processing time before oral practice.	<i>“As I show each retelling card, think about the key details represented.”</i>
<b>Guided Partner Interaction</b>	Present retell cards in sequence. Scaffold with response starters, graphic organizers, word banks, etc.	<p><i>“As I present each card this time, explain to your partner the key detail(s) from the text that each card represents.”</i></p> <p>Teachers can use response frames to target specific skills (sequence, key detail) and structure academic discourse.</p> <p>A: First the author mentioned _____.</p> <p>B: Then, _____.</p> <p>A: Next, _____.</p> <p>B: Finally, _____.</p> <p><i>“The key detail(s) this card represents from the text is/are _____.”</i></p>
<b>Corrective Feedback</b>	If students have difficulty telling the important parts, model how to find them by pointing to the pictures and talking about what you see.	

## K-2 Retelling/Summarizing: NARRATIVE

	Instructional Plan	Teacher Talk Example
<b>Explain</b>	Explain why we retell/summarize.	"To retell means we tell the story in our own words. Before we can retell a story, we need to know the elements of the story and what happened first, next and last."
<b>Build Background</b>	Review text to deepen understanding of important theme concepts.	"This text relates to our unit theme _____. Let's quickly review our concept map to understand how it relates."
<b>Plot</b>	Model how to identify plot. Explain that fiction has a beginning, middle and end.	As I present the retell cards, let's decide what happens in the beginning, middle, and end.  "Goldilocks was walking in the forest when she saw an empty house." Was this in the beginning, middle or end?  "What happens in the middle? What happens in the end?"
<b>Model</b>	Present retell cards in sequence. Summarize/retell key events (where appropriate emphasize comprehension targeted skill). Use sequence words help to describe the beginning, middle and end.	"When I retell a story, I think about the plot. The plot is what happens in the story. A plot has a beginning, middle and end. Certain words like first, next and last are used to tell when things happen. I will model retelling using my the retell cards." "First, Goldilocks was walking in the forest when she saw an empty house. Next.... Finally....."
<b>Think</b>	Offer additional processing time before oral practice.	"As I show each card, think about the important event it represents."
<b>Guide Interaction</b>	Structure partner interactions. Provide support with response frames.	"Now I want you to retell the story to your partner using the pictures of the retell cards in your text book."  A: First, _____. B: Then, _____. A: Next, _____. B: Finally, _____.
<b>Corrective Feedback</b>	If students have difficulty identifying story elements, model how to find them by pointing to the pictures and talking about what you see.	

### 3-5 Retelling/Summarizing: NARRATIVE

	Instructional Plan	Teacher Talk Example
Explain	Explain why we retell/summarize.	"To retell means we tell the story in our own words. Before we can retell a story, we need to know the elements of the story and what happened first, next and last."
Build Background	Review text to deepen understanding of important theme concepts.	"This text relates to our unit theme _____. Let's quickly review our concept map to understand how it relates."
Character and Setting	Model how to identify and describe setting and character.	"The setting is where and when the story takes place. The characters are the people and animals in the story. In this story, there is a little girl named Goldilocks and three bears. The three bears live in the forest." "The three bears live in the forest. What is the setting? The three bears are characters. Who is another character?"
Plot	Model how to identify plot. Explain that fiction has a beginning, middle and end.	As I present the retell cards, let's decide what happens in the beginning, middle, and end.  "Goldilocks was walking in the forest when she saw an empty house." Was this in the beginning, middle or end?  "What happens in the middle? What happens in the end?"
Model	Present retell cards in sequence. Summarize/retell key events (where appropriate emphasize comprehension targeted skill). Use sequence words help to describe the beginning, middle and end.	"When I retell a story, I think about the plot. The plot is what happens in the story. A plot has a beginning, middle and end. Certain words like first, next and last are used to tell when things happen. I will model retelling using my the retell cards." "First, Goldilocks was walking in the forest when she saw an empty house. Next.... Finally....."
Think	Offer additional processing time before oral practice.	"As I show each card, think about the important event it represents."
Guide Interaction	Structure partner interactions. Provide support with response frames.	"Now I want you to retell the story to your partner using the pictures of the retell cards in your text book."  A: First, _____. B: Then, _____. A: Next, _____. B: Finally, _____.
Corrective Feedback	If students have difficulty identifying story elements, model how to find them by pointing to the pictures and talking about what you see.	

## Form and Function Writing Routine

### Purposes:

1. Review and practice of language forms, functions and vocabulary taught during Reading Street lessons
2. Identify further language forms students may need to be a successful writer.

### Routine Terms:

- **Task:** Writing outcome or product aligned to functions identified in standards.
- **Function:** the language purpose for writing (describe, justify, explain, summarize)
- **Form:** vocabulary and language structures needed to successfully complete a writing task
  - **Vocabulary:** Precise vocabulary students need to successfully write about the target language function. (i.e. Content/prompt related, academic vocabulary – because, similar, different, opinion)
  - **Tools for elaboration:** Words, phrases, or forms students need to connect sentences, expand on ideas, and form complete and linked sentences. (however, rather, finally, In addition, “\_\_ and \_\_ are similar in several ways.”)
  - **Conventions:** Grammar, usage, capitalization and punctuation students need. (i.e. past tense verbs, comma usage, capitalize titles, pronoun usage, etc.)

Steps	Instruction	Example
Step 1: Establish Purpose & Task	<ul style="list-style-type: none"> <li>• Establish lesson and language objectives                             <ul style="list-style-type: none"> <li>○ How will students <i>practice and demonstrate</i> understanding of language during this lesson?</li> </ul> </li> <li>• Define the lesson task.</li> </ul>	<p>Objective: I can write an <b>opinion</b> using a <b>present-tense verb</b>.</p> <p><i>Yesterday, we discussed your ideas about..... Today we will practice writing a topic sentence that clearly states your opinion.</i></p>
Step 2: Identify and Model Function	<ul style="list-style-type: none"> <li>• Identify and explain the language function associated with the objective.</li> <li>• Analyze written examples that illustrate the identified function.                             <ul style="list-style-type: none"> <li>○ Possible sources: student work samples, exemplars, sections of Reading Street texts, teacher created models, multimedia resources</li> <li>○ <i>Here is my model, “I believe _____.” This is a more academic way of saying, “I think we should_____.”</i></li> </ul> </li> <li>• Have students practice with model.                             <ul style="list-style-type: none"> <li>○ <i>To get used to writing this way let’s practice saying it. Repeat after me and try to use the same expression.....</i></li> <li>○ <i>Partner A, please turn to Partner B and repeat my model to Partner B.</i></li> </ul> </li> <li>• Repeat with additional written models as necessary.</li> </ul>	<p>(Language Function = Justify, Argue,)</p> <p><i>Writers need to <b>justify</b> personal opinions with evidence and reasons. In other words, you have to state your opinion and then support it with details from things you read.</i></p>
Step 3: Identify and model Forms	<ul style="list-style-type: none"> <li>• Direct attention to targeted form in your model.                             <ul style="list-style-type: none"> <li>○ <i>I used the present-tense verb ‘believe’ in my opinion sentence. Some other verbs I could have used are think and feel.</i></li> </ul> </li> <li>• Practice using the forms orally.                             <ul style="list-style-type: none"> <li>○ <i>Let’s repeat my sentence replacing ‘believe’ with these other verbs. Repeat after me....</i></li> </ul> </li> <li>• Provide additional written examples and language practice opportunities as necessary.</li> <li>• Using frames (sentence, paragraph) that include the forms, ask student to write their own sentences.                             <ul style="list-style-type: none"> <li>○ I _____ (present tense verb – believe, think, feel) _____ should _____.</li> </ul> </li> <li>• Practice the sentences students write verbally with a partner.                             <ul style="list-style-type: none"> <li>○ Partner A: Read your sentence to your partner. Partner B: Restate your partner’s response or idea.</li> </ul> </li> </ul>	<p><b>Target Form - Present Tense Verbs</b></p> <p><i>Writers use present-tense verbs when stating an opinion. As we have learned, sometimes we have to add an -s, -es, or -ed but today you are stating your personal opinion using the pronoun ‘I’, so we will just use the base form of a verb.</i></p> <p><i>I also wanted to point out that I used the word ‘should’ to show I think this needs to happen.</i></p>
Step 4: Check for Understanding	<ul style="list-style-type: none"> <li>• Use a strategy to verify students understand the process and expected outcomes.                             <ul style="list-style-type: none"> <li>○ Preselect students to share responses, partner nominations, name cards, etc.</li> </ul> </li> </ul>	





## Language for Academic Discussions

### 1. Stating Opinions

In my opinion, \_\_.

I (firmly, strongly) believe that \_\_.

I think \_\_ because \_\_.

From my perspective, \_\_.

From my point of view, \_\_.

My opinion on this (issue, topic) is \_\_.

### 4. Comparing Ideas

My idea is similar to (Name's).

My response is similar to (Name's).

My stance is comparable to (Name's).

My response is different from (Name's).

My approach is different from (Name's).

### 2. Drawing Conclusions

Drawing from experience, I know that \_\_.

My experience with \_\_ indicates that \_\_.

The data suggests that \_\_.

Based on \_\_, I assume that \_\_.

After reading \_\_, I conclude that \_\_.

My analysis of \_\_ leads me to believe that \_\_.

### 5. Agreeing

I agree with (Name) that \_\_.

I completely agree with (Name) that \_\_.

I share your perspective.

I can see your point of view.

My idea builds upon (Name's).

### 3. Elaborating on Ideas

For (example/instance), \_\_.

A relevant example I heard/read was \_\_.

I have observed that \_\_.

One convincing reason is that \_\_.

A compelling reason is that \_\_.

I experienced this when \_\_.

### 6. Disagreeing

I don't quite agree.

I disagree completely.

I disagree somewhat.

I have a different perspective.

I don't share your point of view.

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## Language for Collaboration

### 1. Requesting Ideas

What should we write?

What do you think makes sense?

What's your idea/opinion?

Do you have a suggestion?

Do you have anything to add?

### 2. Suggesting Ideas

We could write \_\_.

What if we put \_\_.

I think \_\_ would work well.

We could consider writing \_\_.

I think we should add \_\_.

### 3. Validating Ideas

That would work.

That makes sense.

That's a great (idea/suggestion).

That's an interesting example.

I share your point of view.

### 4. Deciding On Ideas

Let's write \_\_.

I'd like to put \_\_.

Let's (use/write/put/add) \_\_.

I think \_\_ is the best \_\_.

Let's combine ideas and put \_\_.

### 5. Clarifying Ideas

I don't quite understand your \_\_.

In other words, you are saying that \_\_.

What do you mean by \_\_?

So, you think we should \_\_?

Are you suggesting \_\_?

### 6. Restating Ideas

So, you said that \_\_.

So, you think that \_\_.

So, your idea is that \_\_.

So, your opinion is that \_\_.

So, you're saying that \_\_.

### 7. Reporting Ideas

We decided (upon/that) \_\_ because \_\_.

One (fact, reason) we considered is \_\_.

Based on \_\_, we determined that \_\_.

After reviewing \_\_, we concluded that \_\_.

Our (response/conclusion/solution) is \_\_.

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**Vocabulary Note-taking Guide**

A vocabulary note-taking guide, such as the example below, is a scaffold to enhance explicit vocabulary instruction. A note-taking scaffold provides an advanced organizer for the most essential terms, accountability for active engagement, and a reference for later use (Feldman & Kinsella, 2005). This guide helps students understand how words work by including the parts of speech, word meanings, examples, and pictures related to sample sentences. Key words (other than target vocabulary words) are left blank, so that students can focus on comprehending the examples and word meanings. More examples can be found on the CSD website.

<b>Word</b>	<b>Meaning</b>	<b>Examples</b>
<p style="text-align: center;"><b>aquarium</b> a•quar•i•um noun</p>  <p>_____</p>	<p>1. Building used for showing collections of live _____, water animals, and water plants</p> 	<p>My daughter loves to watch the _____ at the <b>aquarium</b>.</p> <p>My favorite creature to see at the <b>aquarium</b> is _____.</p> 
<p style="text-align: center;"><b>dolphins</b> dol•phins noun</p>  <p>_____</p>	<p>1. A small, usually gray sea mammal related to whales with a rounded _____.</p> 	<p><b>Dolphins</b> have beaklike _____.</p> <p>She got to _____ with <b>dolphins</b> at Sea World.</p> 

*Adapted from Kate Kinsella, Ed. D. 2011, Instructional Routine: High Utility Word Routine and Note-taking Guide*

### Third Grade Speaking and Listening Rubric

Standard	Acquiring	Building Automaticity	Application (Standard Met)
<p><b>SL.3.1</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 3 topics and texts</i>, building on others' ideas and expressing their own clearly. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. Explain their own ideas and understanding in light of the discussion.</p>	<ul style="list-style-type: none"> <li>• Student comes to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.</li> <li>• <b>Student follows agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</b></li> </ul>	<ul style="list-style-type: none"> <li>• Student comes to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.</li> <li>• Student follows agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</li> <li>• <b>Student explains his or her own ideas and understanding in light of the discussion.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Student comes to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.</li> <li>• Student follows agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</li> <li>• Student explains his or her own ideas and understanding in light of the discussion.</li> <li>• <b>Student asks questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</b></li> </ul>
<p><b>SL.3.2</b> Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p>	<ul style="list-style-type: none"> <li>• Student determines the <b>main ideas</b> of a text read aloud or information presented in diverse media and formats.</li> </ul>	<ul style="list-style-type: none"> <li>• Student determines the <b>main ideas and supporting details</b> of a text read aloud or information presented in diverse media and formats, <b>including visually and orally.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Student determines the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, <b>quantitatively</b>, and orally.</li> </ul>
<p><b>SL.3.3</b> Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p>	<ul style="list-style-type: none"> <li>• Student asks questions about <b>information</b> from a speaker.</li> </ul>	<ul style="list-style-type: none"> <li>• Student asks and <b>answers</b> questions about information from a speaker, <b>offering appropriate elaboration.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Student asks and answers questions about information from a speaker, offering appropriate elaboration <b>and detail.</b></li> </ul>
<p><b>SL 3.4</b> Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p>	<ul style="list-style-type: none"> <li>• Student <b>reports</b> on a <b>text</b>, tell a story with appropriate facts and relevant, descriptive details.</li> </ul>	<ul style="list-style-type: none"> <li>• Student reports on a <b>topic or text</b>, tell a story, or <b>recount an experience</b> with appropriate facts and relevant, descriptive details, <b>speaking clearly.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Student reports on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly <b>at an understandable pace.</b></li> </ul>

<p><b>SL.3.5</b> Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.</p>	<ul style="list-style-type: none"> <li>• Student <b>creates</b> audio recordings of stories or poems that <b>demonstrate fluid reading</b>; adds visual displays when appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• Student creates audio recordings of stories or poems that demonstrate fluid reading at <b>an understandable pace</b>; add visual displays when appropriate to <b>emphasize or enhance certain facts or details</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• Student creates <b>engaging</b> audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.</li> </ul>
<p><b>SL.3.6</b> Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification</p>	<ul style="list-style-type: none"> <li>• Student produces complete sentences appropriate to the task and situation.</li> </ul>	<ul style="list-style-type: none"> <li>• Student <b>sometimes</b> produces complete sentences when appropriate to task and situation <b>in order to provide requested detail or clarification</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• Student <b>consistently</b> produces complete sentences when appropriate to task and situation in order to provide requested detail or clarification.</li> </ul>

## Small Group Decodable Text Instructional Routine

### Basic Guidelines:

1. The first reading of the decodable text should be guided by the teacher to ensure accurate reading of the text
2. Students should finger-point and read aloud while reading decodable text
3. All errors are corrected using immediate error correction routine
4. Students are supported in developing fluent reading of the text

### Immediate Error Correction Routine

1. Intervene when an error is heard – Correct even the little words such as ‘a’ and ‘the’ to develop accurate reading skills
2. Provide Error Correction Support:
  - To give the student the word, say:                    “My turn, that word is . . .”
  - What word?
  - “Go back and read again.”
  
  - To support student correction, say:                “Try that word again.”
  - If the student is accurate say:*
  - “Now put it in the sentence.”
  - If the student is inaccurate a second time say:*
  - “That word is . . . What word? Now put it in the sentence.”
3. Reread the sentence--Upon correction of the word, reread the sentence to support comprehension and provide an opportunity to correctly read the word.

Pre-reading	<ol style="list-style-type: none"> <li>1. Using the word bank, on the front cover of the decodable, and sound spelling card, review the targeted phonics skill. Select 5-7 words and write them while students blend/read the words.</li> <li>2. Write the high frequency words on index cards. Hold up each card, tell them the word and have students repeat the word. Then, mix up the cards and have students chorally read the words.</li> <li>3. Next, have students chorally read each line of the word bank. Repeat if needed to build automaticity.</li> </ol>
First Read	<ol style="list-style-type: none"> <li>1. Read the title aloud.</li> <li>2. Chorally read the text.</li> </ol>
Second/Third Read	<p><b>On-Level or Above Level:</b> Have all students chorally reread the text with a partner. Reader 1 begins reading alternating sentences/pages with Reader 2. On the third read, have Reader 2 start the reading.</p> <p><b>Below Level:</b> For the second read, have the students echo read the text. The teacher will read a sentence with good expression and intonation and students will echo what the teacher has read. Make sure students are tracking what they are reading with their finger.</p> <p>For the third read, have each student individually whisper read 3-5 lines of the text at a time. When they finish reading the assigned lines, have them place their finger where they stopped. When all students have finished reading, have them choral read the last lines read. Continue in this manner until the text is finished.</p>
Comprehension Check	<p>Teacher models retelling the story in sequence. Then, have students practice retelling the story in sequence. Ask comprehension questions and have student find the answer or information that supports their answer in the text.</p>
Fluency Check	<p>Have students work in partners to do a fluency check. Reader 1 will start at the beginning of the text and read for 60 seconds. While Reader 1 reads, Reader 2 keeps track of any errors Reader 1 makes and helps to keep track of how far Reader 1 got in 60 seconds. Record their rate and errors on a fluency graph. Switch roles.</p>

The Concept Talk Four Square serves as a scaffold for organizing ideas and building sentences around the Question of the Week and discussions during Content Knowledge instruction using Reading Street. This scaffold helps students work through the stages of language. Students begin with listening and speaking, while working towards reading and writing. This could be a tool for culminating ideas throughout the week that lead up to a possible product writing at the end of the week or unit.

We can help animals stay alive by \_\_\_\_\_.

Biologists help us to \_\_\_\_\_ we can use this knowledge to \_\_\_\_\_.

How can people help animals in danger?  
(Question of the Week)

Conservation with natural habitat will help animals by \_\_\_\_\_. We can support this conservation effort by \_\_\_\_\_.

It is important to help animals because \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

# Text Complexity

A critical component of the Utah Core Standards for Reading is the requirement that all students must be able to comprehend texts of steadily increasing complexity as they progress through school. Being able to read complex text independently and proficiently is essential for high achievement in college and the workplace and important in numerous life tasks. Moreover, current trends suggest that if students cannot read challenging texts with understanding—if they have not developed the skill, concentration, and stamina to read such texts—they will read less in general. To grow, our students must read a lot, more specifically they must read a lot of complex texts that offer them new language, new knowledge, and new modes of thought.

In kindergarten and first grade, text complexity comes through the read-aloud experiences students engage in with their teacher. The aim in kindergarten and first grade is for students to build fluency within decodable text as the preparation for reading complex texts beginning in 2<sup>nd</sup> grade. The table below indicates the Lexile complexity bands for each grade level for which students are to demonstrate a level of proficiency and independence as described in Reading Standard 10.

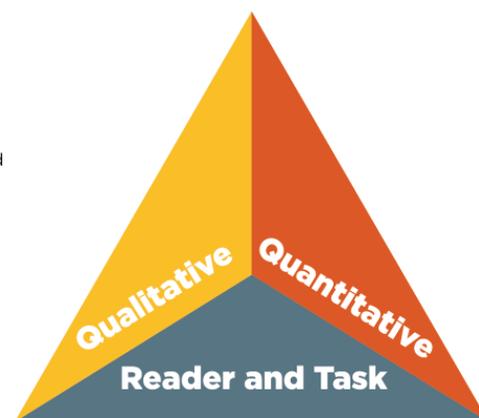
Grade Band in the Standards	Utah Core Standards Lexile Bands
<b>K-1</b>	NA
<b>2-3</b>	450-790
<b>4-5</b>	770-980

The Utah Core Standards define a three-part model for determining how easy or difficult a particular text is to read as well as grade-by-grade specifications for increasing text complexity in successive years of schooling (Reading standard 10). These are to be used together with grade-specific standards that require increasing sophistication in students' reading comprehension abilities (Reading standards 1–9). In this way, the Standards approach the intertwined issues of what and how students read.

## The Three-Part Model Text Complexity Triangle

(1) **Qualitative Features** refer to those aspects of text complexity best measured or only measurable by an attentive human reader, such as levels of meaning or purpose; structure; language conventionality and clarity; and knowledge demands.

(2) **Quantitative Factors** refer to those aspects of text complexity, such as word length or frequency, sentence length, and text cohesion that are typically measured by computer software for efficiency.



**(3) Reader and Task Considerations** focuses on variables specific to the reader, such as: motivation, background knowledge, experience; and to the particular tasks involved including the purpose and the complexity of the task assigned and the questions posed. Teachers employing their professional judgment, experience, and knowledge of their students and the subject to best make such determinations.

### **Revisiting How We Match Readers and Texts**

“For decades, teachers have been told that quality instruction requires a careful matching of materials to students. The goal has been to select materials that are neither too difficult nor too easy for student. Typically, students are assessed on their ability to orally read and comprehend text. Then, instructional materials are selected to match the students’ current performance” (Fisher, Frey, & Lapp, 2012). The main issue with this approach is it limits what students can read with instruction and creates a divide between what the Standards are calling for and what students’ access. “There is evidence that students learn, and perhaps more, when they are taught from challenging texts”(Morgan, Wilcox, & Eldredge, 2000; O’Connor, Swanson, & Geraghty, 2010).

“Teachers know that when students are asked to read complex texts by themselves, they struggle and often do not succeed because they do not have the appropriate bank of related language, knowledge, skills, or metacognition to be able to comprehend the information (Fisher, Frey, & Lapp, 2012). This challenge can be conquered when teachers provide the needed instructional scaffolds, or supports, to ensure students have greater access to reading materials that would have been initially identified as being too challenging. With the right instruction, a student can learn to read texts that are beyond his or her instructional level and hopefully learn how to support his or her own reading of difficult text when the teacher is no longer at the reader’s side.

In order to prepare our students to meet the expectations of the Utah Core Standards, it is essential that students read a wide range of complex texts. One way to accomplish this is through the reading selections provided in Reading Street, the leveled readers, and the online texts available in Realize. For every Reading Street main selection, a text complexity summary description, like the one on the following page, has been provided on the ELA website. These documents provide the qualitative features, quantitative factors and suggestions for reader and task considerations for each text. Teachers can use them for ideas for the types of support that may be necessary for that text based on its text complexity qualities. Each Reading Street text varies in its text complexity factors and features meaning different supports may be needed depending on the time of year, student background, and prior knowledge.

### 3rd Grade 10-day Instructional Plan for Unit 6

Literacy Block Component		Day 1	Day 2	Day 3	Day 4	Day 5
45-60 minutes	Content Knowledge Text-Based Comprehension	<b>Content Knowledge</b> <ul style="list-style-type: none"> <li>Street Rhymes</li> <li>Concept Talk</li> <li>Question of the Week</li> <li>Build oral Language</li> <li>Concept Map</li> </ul>	Text Based Comprehension <ul style="list-style-type: none"> <li>Target Skill &amp; Strategy</li> <li>Model a Close Read</li> <li>Model Fluent Reading</li> </ul>	<b>Content Knowledge</b> <ul style="list-style-type: none"> <li>Expand the Concept</li> <li>Question of the Week</li> <li>Build oral Language</li> </ul>	<ul style="list-style-type: none"> <li>Vocabulary skill</li> <li>Reread for Fluency</li> </ul>	<b>Content Knowledge</b> <ul style="list-style-type: none"> <li>Expand the Concept</li> <li>Question of the Week</li> <li>Build oral Language</li> </ul>
		<b>Build Oral Vocabulary</b> <ul style="list-style-type: none"> <li>Amazing Words</li> <li>Vocab Routine</li> <li>Read Aloud</li> <li>Decodable Reader</li> </ul>	From Day 1 <ul style="list-style-type: none"> <li>Vocabulary</li> <li>Vocabulary Routine</li> <li>Word Analysis</li> <li>Teach</li> <li>Model</li> <li>Guide Practice</li> <li>On their own</li> </ul>	From Day 2 <b>Build Oral Vocabulary</b> <ul style="list-style-type: none"> <li>Amazing Words</li> <li>Vocab Routine</li> <li>Add to Concept Map</li> </ul> <b>Word Analysis</b> <ul style="list-style-type: none"> <li>Teach</li> <li>Model</li> <li>Guide Practice</li> <li>On their own</li> <li>Decodable Reader</li> </ul>	From Day 2 <b>Text Based Comprehension</b> <ul style="list-style-type: none"> <li>Introduce Main Selection</li> <li>Main Selection</li> <li>Access the Main Selection</li> <li>Close Read the Main Selection</li> </ul> <ul style="list-style-type: none"> <li>Science in Reading or Social Studies in Reading or</li> <li>21st Century Skills</li> </ul>	From Day 3 <b>Build Oral Vocabulary</b> <ul style="list-style-type: none"> <li>Amazing Words</li> <li>Vocab Routine</li> <li>Add to Concept Map</li> </ul>
Literacy Block Component		Day 6	Day 7	Day 8	Day 9	Day 10
45-60 minutes	Content Knowledge Text-Based Comprehension	<b>Text-Based Comprehension</b> <ul style="list-style-type: none"> <li>Check Understanding</li> </ul> <b>Main Selection</b> <ul style="list-style-type: none"> <li>Access the Main Selection</li> <li>Close Read the Main Selection Reading</li> </ul>	<b>Content Knowledge</b> <ul style="list-style-type: none"> <li>Expand the Concept</li> <li>Question of the Week</li> <li>Build oral Language</li> </ul>	<ul style="list-style-type: none"> <li>Read (paired selection)</li> <li>Access the Text</li> <li>Close Reading</li> <li>Fluency</li> <li>Vocabulary</li> </ul>	<b>Content Knowledge</b> <ul style="list-style-type: none"> <li>Review the Concept</li> <li>Question of the Week</li> </ul>	<b>Build Oral Vocabulary</b> <ul style="list-style-type: none"> <li>Write About it (question of the week or four square)</li> </ul> <b>Review:</b> <ul style="list-style-type: none"> <li>Text-Based Comprehension</li> <li>Vocabulary</li> <li>Word Analysis</li> </ul>
		<b>Think Critically</b> <ul style="list-style-type: none"> <li>Choose 1-3 questions to discuss and write</li> </ul> <b>Retell</b> <b>Fluency</b> <b>Reread for Fluency</b>	From Day 4 <b>Build Oral Vocabulary</b> <ul style="list-style-type: none"> <li>Amazing Words</li> <li>Vocab Routine</li> <li>Add to Concept Map</li> </ul> <b>Science in Reading or Social Studies in Reading or 21<sup>st</sup> Century Skills</b> <b>Decodable Reader</b>	From Day 5 <b>Build Oral Language</b> <ul style="list-style-type: none"> <li>Review Amazing Words &amp; Concept Map</li> </ul>	From Day 5 <b>Assessment Menu</b> <ul style="list-style-type: none"> <li>Weekly test</li> <li>Writing to Sources</li> <li>Four Square</li> <li>Teacher Created Test</li> <li>Unit tests Sources</li> <li>Four Square</li> <li>Teacher created tests</li> <li>Unit tests</li> </ul>	

### 3rd Grade 10-day Instructional Plan for Unit 6

Literacy Block Component		Day 1	Day 2	Day 3	Day 4	Day 5
30-45 minutes	<b>Language Arts</b>	<b>Conventions/Grammar</b> <ul style="list-style-type: none"> <li>Conventions lesson</li> </ul>	<b>Conventions/Grammar</b> <ul style="list-style-type: none"> <li>Conventions lesson</li> </ul>	<b>Conventions/Grammar</b> <ul style="list-style-type: none"> <li>Conventions lesson</li> <li>Grammar Jammer</li> </ul>	<b>Conventions/Grammar</b> <ul style="list-style-type: none"> <li>Conventions lesson</li> </ul>	<b>Writing</b> <ul style="list-style-type: none"> <li>Writing to Sources Lesson</li> <li>Include Four-Square Writing Strategy</li> </ul> <b>Embedded Conventions Lesson</b>
		<b>Spelling/Word Study</b> <ul style="list-style-type: none"> <li>Pretest 5-7 words</li> <li>Spelling Patterns with Routine Card #7 from Rtl Kit</li> <li>Handwriting—<i>Model, Practice, and Monitor within Word Study</i></li> </ul>	<b>Writing</b> <ul style="list-style-type: none"> <li>Focus on writing to learn embedded in instruction</li> </ul>	<b>Spelling/Word Study</b> <ul style="list-style-type: none"> <li>5-7 word check on Spelling Patterns with Routine Card #7 from Rtl Kit</li> <li>Handwriting—<i>Model, Practice, and Monitor within Word Study</i></li> </ul>	<b>Spelling/Word Study</b> <ul style="list-style-type: none"> <li>5-7 word check on Spelling Patterns with Routine Card #7 from Rtl Kit</li> <li>Handwriting—<i>Model, Practice, and Monitor within Word Study</i></li> </ul>	<b>Spelling/Word Study</b> <ul style="list-style-type: none"> <li>5-7 word check on Spelling Patterns with Routine Card #7 from Rtl Kit</li> <li>Handwriting—<i>Model, Practice, and Monitor within Word Study</i></li> </ul>
Literacy Block Component		Day 1	Day 2	Day 3	Day 4	Day 5
30-45 minutes	<b>Language Arts</b>	<b>Writing</b> <ul style="list-style-type: none"> <li>Writing to Sources Lesson</li> <li>Include Four-Square Writing Strategy</li> </ul> <b>Embedded Conventions Lesson</b>	<b>Writing</b> <ul style="list-style-type: none"> <li>Writing to Sources Lesson</li> <li>Include Four-Square Writing Strategy</li> </ul> <b>Embedded Conventions Lesson</b>	<b>Writing</b> <ul style="list-style-type: none"> <li>Writing to Sources Lesson</li> <li>Include Four-Square Writing Strategy</li> </ul> <b>Embedded Conventions Lesson</b>	<b>Writing</b> <ul style="list-style-type: none"> <li>Writing to Sources Lesson</li> <li>Include Four-Square Writing Strategy</li> </ul> <b>Embedded Conventions Lesson</b>	<b>Writing</b> <ul style="list-style-type: none"> <li>Writing to Sources Lesson</li> <li>Include Four-Square Writing Strategy</li> </ul> <b>Embedded Conventions Lesson</b>
		<b>Spelling/Word Study</b> <ul style="list-style-type: none"> <li>5-7 word check on Spelling Patterns with Routine Card #7 from Rtl Kit</li> <li>Handwriting—<i>Model, Practice, and Monitor within Word Study</i></li> </ul>	<b>Spelling/Word Study</b> <ul style="list-style-type: none"> <li>Teacher-Created Word Sort</li> </ul>	<b>Spelling/Word Study</b> <ul style="list-style-type: none"> <li>Teacher-Created Word Sort</li> </ul>	<b>Spelling/Word Study</b> <ul style="list-style-type: none"> <li>Spelling Post-Test of 10-12 words</li> </ul>	<b>Spelling/Word Study</b> <ul style="list-style-type: none"> <li>Spelling Post-Test of 10-12 words</li> </ul>

### 3rd Grade 10-day Instructional Plan for Unit 6

Literacy Block Component	Day 1	Day 2	Day 3	Day 4	Day 5
<p><b>Skill-Based Practice Stations</b> Small Group</p> <p>45-60 minutes</p> <p><i>Suggestions for what the other students are doing</i></p>	<p><b>Practice Stations</b></p> <ul style="list-style-type: none"> <li>• Social Studies and/or Science Connections</li> <li>• Practice Station Flipcharts</li> <li>• Writing Assignments</li> <li>• Project-Based Learning Projects</li> <li>• Research and Inquiry Activities</li> <li>• Keyboarding Practice</li> <li>• Targeted Reading with Aligned Purposes and Tasks</li> <li>• Imagine Learning ELL 1 or 2 (60-75 minutes)</li> <li>• Reflex Math</li> <li>• Technology Supports—Apps, Websites, etc.</li> <li>• Lexia <b>or</b> Reading Plus <b>or</b> MyON</li> </ul>				
	<p><b>Practice Station Ideas Correlated with the Day's Instruction</b></p>				
	<ul style="list-style-type: none"> <li>• Handwriting Practice</li> <li>• Daily Fix It</li> </ul>	<ul style="list-style-type: none"> <li>• RWN Vocabulary</li> </ul>	<ul style="list-style-type: none"> <li>• RWN (Grammar/Conventions)</li> <li>• Think Critically Questions (SE)</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher-Created Word Sorts</li> <li>• Handwriting Practice Sheet</li> </ul>	<ul style="list-style-type: none"> <li>• Fluency Check with a Buddy using Fresh Reads/Assessment Handbook Fluency Passages</li> </ul>

Literacy Block Component	Description	Resources
<p><b>Content Integration</b> Small Group Whole Group</p> <p>20-30 minutes</p>	<p>Content integration time in the ELA Block deals with integration of science and social studies content to understand key concepts, principles, generalizations, and theories through the integration of the English Language Arts Standards.</p> <p>The Utah Core states: “By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades. Students also acquire the habits of reading independently and closely, which are essential to their future success.”</p> <p>Optimally, this portion of the day involves students reading, writing, listening and speaking about the topics they are learning about in science and social studies instruction time. Teachers can use this time to provide background knowledge and learning activities to prepare their students for their Science/Social Studies instruction. Ideas and resources for integration can be found in your Content Integration Map.</p>	<p>Reinforce/Expand/Extend the Concept</p> <ul style="list-style-type: none"> <li>• Content Leveled Readers (SE)</li> <li>• eReaders (digital)</li> </ul> <p><b>Research and Inquiry</b></p> <ul style="list-style-type: none"> <li>• Identify and Focus Topic</li> </ul> <p><b>Science/Social Studies</b></p> <ul style="list-style-type: none"> <li>• Set the stage for Lab or Learning Task</li> </ul>

2016-17 Year At A Glance 3<sup>rd</sup> Grade  
Reading Street Schedule

<b>Unit 1</b>	Week 1	August 24-Sept 2	8 days
	Week 2	September 6-9	4 days
	Week 3	September 12-16	5 days
	Week 4	September 19-22	4 days
	Week 5	September 26-29	4 days
	Unit 1 Review	October 3-7	5 days
<b>Unit 2</b>	Week 1	October 10-14	5 days
	Week 2	October 17-28	8 days
	Week 3	October 31- Nov. 3	4 days
	#1 District-Wide Standards Based Benchmark Nov. 7-Dec2		
	Week 4	November 7-11	5 days
	Week 5	November 14-18	5 days
	Unit 2 Review	Nov. 21- Dec. 2	7 days
<b>Unit 3</b>	Week 1	December 5-9	5 days
	Week 2	December 12-16	5 days
	Week 3	Dec 19- Jan. 6	7 days
	Week 4	January 9-13	5 days
	#2 District-Wide Standards Based Benchmark Jan. 17-Feb 9		
	Week 5	January 17-27	8 days
	Unit 3 Review	January 30-Feb. 3	5 days
<b>Unit 4</b>	Week 1	February 6-9	4 days
	Week 2	February 13-16	4 days
	Week 3	February 21-24	4 days
	Week 4	February 27-Mar. 3	5 days
	Week 5	March 6-10	5 days
	#3 District-Wide Standards Based Benchmark March 13-31		
	Unit 4 Review	March 13-17	5 days
<b>Unit 5</b>	Week 1	March 20-24	5 days
	Week 2	March 27-31	5 days
	Week 3	April 10-14	5 days
	Week 4	April 17-21	5 days
	Week 5	April 24-28	5 days
	Unit 5 Review	May 1-5	5 days
<b>Unit 6</b>	Week 1	May 8-12	5 days
	Week 3	May 15-26	10 days
	Week 4	May 30-June 7	6 days

**SALTA Third Grade**  
English Language Arts  
Scope and Sequence At-A-Glance  
2016-17

Dates	AUG 24 – OCT 7	OCT 10 – DEC 2	DEC 5 – FEB 3	FEB 6 – MAR 17	MAR 20 – May 5	MAY 8 – JUNE 7
Instructional Days	30 days	34 days	35 days	26 days	30 days	21 days
Unit	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Big Question	Which skills help us make our way in the world?	What are smart ways that problems are solved?	How are people and nature connected?	What does it mean to be unique?	What happens when two ways of life come together?	What does freedom mean?
<b>JGB</b>	<ul style="list-style-type: none"> <li>• Caporushes (F)</li> <li>• How do you Lift a Lion? (NF)</li> <li>• Ah, Music (NF)</li> <li>• If You Traveled West in a Covered Wagon (NF)</li> <li>• The Fire on the Mountain (F)</li> </ul>	<ul style="list-style-type: none"> <li>• The Man Whose Trade was Tricks (F)</li> <li>• To Fly, The Wright Brothers (NF)</li> <li>• Moonshot (NF)</li> <li>• The Man who walked between the towers (NF)</li> <li>• Thomas Edison (NF)</li> <li>• Alexander Graham Bell (NF)</li> </ul>	<ul style="list-style-type: none"> <li>• Jean Labadie’s Big Black Dog (F)</li> <li>• Whales (NF)</li> <li>• What the World Eats? (NF)</li> </ul>	<ul style="list-style-type: none"> <li>• The Ugly Duckling (F)</li> <li>• The Upside Down Boy (F)</li> <li>• The Green Man (F)</li> <li>• The Monster who grew Small (F)</li> <li>• The Man who walked between the towers (NF)</li> <li>• Thomas Edison (NF)</li> <li>• Alexander Graham Bell (NF)</li> <li>• The Museum Book (NF)</li> <li>• The Train of States (NF)</li> <li>• The Presidents (NF)</li> <li>• The Mushroom Man (F)</li> </ul>	<ul style="list-style-type: none"> <li>• The Banza (F)</li> <li>• White Wave (F)</li> <li>• Two Wise Children (F)</li> <li>• The Selkie Girl (F)</li> <li>• 14 Cows for America (NF)</li> <li>• What the World Eats? (NF)</li> <li>• Ooka and the Honest Thief (F)</li> <li>• The Princess and the Beggar (F)</li> </ul>	<ul style="list-style-type: none"> <li>• The Mousewife (F)</li> <li>• It’s All the Fault of Adam (F)</li> <li>• Coming Home (NF)</li> <li>• Shh! We’re Writing the Constitution (NF)</li> </ul>
Extended Learning	Jr. First Lego League	Jr. First Lego League	Jr. First Lego League	Teacher’s Choice	Teacher’s Choice	Teacher’s Choice

<b>Research and Inquiry Skill for Content Integration</b>	<ul style="list-style-type: none"> <li>• Reference Texts</li> <li>• Alphabetical Order</li> <li>• Glossary</li> <li>• Pictographs</li> <li>• Keyboarding</li> </ul>	<ul style="list-style-type: none"> <li>• Dictionary/ Glossary</li> <li>• Maps</li> <li>• Magazine</li> <li>• Encyclopedia</li> <li>• Paraphrase Sources</li> </ul>	<ul style="list-style-type: none"> <li>• Card Catalog</li> <li>• Thesaurus</li> <li>• Almanac</li> <li>• Take Notes and Record Findings</li> <li>• Newspaper</li> </ul>	<ul style="list-style-type: none"> <li>• Dictionary</li> <li>• Bar Graphs</li> <li>• Online I(NF)ormation</li> <li>• Outlining / Summarizing</li> </ul>	<ul style="list-style-type: none"> <li>• Newsletter</li> <li>• Maps</li> <li>• Atlas</li> <li>• Outlining</li> <li>• Electronic Text</li> </ul>	<ul style="list-style-type: none"> <li>• Timeline</li> <li>• Maps</li> <li>• Alphabetical Order</li> <li>• Electronic Text</li> <li>• Quote Source / Paraphrase Source</li> </ul>
<b>Target Skills &amp; Strategies</b>	<ul style="list-style-type: none"> <li>• Character, Setting, Plot, Theme</li> <li>• Sequence</li> <li>• Compare and Contrast</li> </ul>	<ul style="list-style-type: none"> <li>• Main Idea and Supporting Details</li> <li>• Compare and Contrast</li> <li>• Draw Conclusions</li> <li>• Author's Purpose</li> </ul>	<ul style="list-style-type: none"> <li>• Draw Conclusions</li> <li>• Compare and Contrast</li> <li>• Cause and Effect</li> <li>• Author's Purpose</li> </ul>	<ul style="list-style-type: none"> <li>• Generalize</li> <li>• Graphic Sources</li> <li>• Fact and Opinion</li> <li>• Author's Purpose</li> <li>• Cause and Effect</li> </ul>	<ul style="list-style-type: none"> <li>• Compare and Contrast</li> <li>• Main Idea and Supporting Details</li> <li>• Draw Conclusions</li> </ul>	<ul style="list-style-type: none"> <li>• Graphic Sources</li> <li>• Theme, Plot</li> <li>• Sequence</li> <li>• Cause and Effect</li> </ul>
<b>Phonics/Word Analysis</b>	Short Vowels, Syllables VC/CV, Plurals, Base Words and Endings, Vowel Digraphs, Vowel Diphthongs	Syllables V/CV, VC/V, Final Syllable -le, Compound Words, Consonant blends, Consonant Digraphs	Contractions, Prefixes, Spellings /j/, /s/, /k/, Suffixes, Consonant Patterns	Irregular plurals, r-controlled vowels, Prefixes, Suffixes, Syllables VCCCV	Syllable Pattern CVVC, Homophones, Vowel Patterns for /Ō/, Vowel Patterns: ei, eigh, Suffixes	Vowels Sounds: /ü/ and /ü/, Schwa, Final Syllables, Prefixes, Related Words
<b>Writing Focus</b>	Narrative	Opinion	Informative/ Explanatory	Narrative	Opinion	Informative/ Explanatory

# SALTA 3<sup>rd</sup> Grade Scope and Sequence

Unit 1: August 24-October 7

Flexible Pacing: 30 instructional days

## Unit 1 Theme: Living and Learning

Unit 1 Theme: Living and Learning				
Big Question	Targeted Comprehension Skill/Strategy	Writing from <u>Writing to Sources</u>	Report Card Learning Targets	
			I can...	
Which skills help us to make our way in the world?	<ul style="list-style-type: none"> <li>Character, Setting, Plot, Theme</li> <li>Sequence</li> <li>Compare and Contrast</li> </ul>	NARRATIVE	<ul style="list-style-type: none"> <li>Engage effectively in conversations by coming prepared, following discussion rules, building upon other's ideas, and asking for clarification</li> <li>Ask and answer questions to demonstrate understanding referring to the text</li> <li>Recognize the structure (e.g., sequence, stanza, images)</li> <li>Compare and contrast the author's and reader's point of view</li> <li>Write narrative text to develop real or imagined experiences</li> <li>Use grammar skills when writing or speaking</li> <li>Use context clues, affixes, and roots to determine the meaning of vocabulary words and phrases</li> <li>Recognize and apply grade-level phonics in multisyllable words</li> </ul>	
Extended Learning Jr. First Lego League	<b>Research &amp; Inquiry Skill for Content Integration</b> <ul style="list-style-type: none"> <li>Reference Texts</li> <li>Alphabetical Order</li> <li>Glossary</li> <li>Pictographs</li> <li>Keyboarding</li> </ul>	JGB	<ul style="list-style-type: none"> <li>Caporushes (F)</li> <li>How do you Lift a Lion? (NF)</li> <li>Ah, Music (NF)</li> <li>If You Traveled West in a Covered Wagon (NF)</li> <li>The Fire on the Mountain (F)</li> </ul>	
Targeted ELA Standards: SPEAKING & LISTENING	Targeted ELA Standards: READING	Targeted ELA Standards: WRITING	Targeted ELA Standards: LANGUAGE	Targeted ELA Standards: FOUNDATIONAL SKILLS
<b>SL.3.1</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 3 topics and texts</i> , building on others' ideas and expressing their own clearly. <b>A)</b> Come to discussions prepared, having read or studied required material; explicitly draw on that	<b>RL &amp; RI.3.1</b> Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. <b>RI 3.2</b> Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text. <b>RI.3.2</b> Determine the main idea of a text; recount the key details and explain how they support the main idea. <b>RL.3.3</b> Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events. <b>RI.3.3</b> Describe the relationship between a series	<b>W.3.3</b> Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. <b>A)</b> Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. <b>B)</b> Use dialogue and descriptions of actions,	<b>L.3.1</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <b>A.</b> Independently and legibly write all upper- and lower-case cursive letters <b>H)</b> Ensure subject-verb and pronoun-antecedent agreement.* <b>K)</b> Produce simple,	<b>RF.3.3</b> Know and apply grade-level phonics and word analysis skills in decoding words. <b>A)</b> Identify and know the meaning of the most common prefixes and derivational suffixes. <b>C)</b> Decode multisyllable words.

<p>preparation and other information known about the topic to explore ideas under discussion.</p> <p><b>B)</b> Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</p>	<p>of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</p> <p><b>RI.3.7</b> Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</p> <p><b>RI.3.7</b> Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting)</p> <p><b>RI.3.9</b> Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).</p> <p><b>RI.3.9</b> Compare and contrast the most important points and key details presented in two texts on the same topic.</p>	<p>thoughts, and feelings to develop experiences and events or show the response of characters to situations.</p> <p><b>C)</b> Use temporal words and phrases to signal event order.</p> <p><b>D)</b> Provide a sense of closure.</p> <p><b>W.3.4</b> With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1-3 above.)</p>	<p>compound, and complex sentences.</p> <p><b>L.3.4</b> Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.</p> <p><b>L.3.6</b> Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).</p>	
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	Question of the Week	Main Selection	Target Phonics/Word Analysis
<b>Week 1</b>	What can we learn by trying new things?	When Charlie McButton Lost Power	Short Vowels, Syllables VC/CV
<b>Week 2</b>	What can we learn by trading with one another?	What About Me?	Plurals -s,- es,- ies
<b>Week 3</b>	How can we achieve goals?	Kumak's Fish	Base Words and Endings -ed, -ing, -er, -est
<b>Week 4</b>	How can we get what we want and need?	Supermarket	Vowel Digraphs ee, ea, ai, ay, oa, ow
<b>Week 5</b>	What do we need to know about saving and spending?	My Rows and Piles of Coins	Vowel Diphthongs /ou/ spelled: ou,ow, /oi/ spelled oi, oy
<b>Week 6</b>	Interactive Review (Flexible Pacing)		Review

**Targeted Technology Standard**

**ISTE #6 Technology Operations and Concepts:** Students demonstrate a sound understanding of technology concepts, systems, and operations.

- a. Understand and use technology systems
- b. Select and use applications effectively and productively
- c. Troubleshoot systems and applications
- d. Transfer current knowledge to learning of new technologies

**Content Integration**  
(additional resources found in Content Integration Map)

Social Studies Connections	Science Connections
NA	NA

# 3<sup>rd</sup> Grade Scope and Sequence

Unit 2: October 10-December 2

Flexible Pacing: 34 instructional days

Unit 2 Theme: Smart Solutions				
Big Question	Targeted Comprehension Skill/Strategy	Writing from <u>Writing to Sources</u>	Report Card Learning Targets	
What are smart ways problems are solved?	<ul style="list-style-type: none"> <li>Main Idea and Supporting Details</li> <li>Compare and Contrast</li> <li>Draw Conclusions</li> <li>Author's Purpose</li> </ul>	OPINION	<b>I can...</b> <ul style="list-style-type: none"> <li>Ask and answer questions to demonstrate understanding referring to the text</li> <li>Identify the main idea and key details</li> <li>Compare and contrast the author's and reader's point of view</li> <li>Write opinion pieces using organized reasons</li> <li>Use technology to produce and publish writing</li> <li>Use grammar skills when writing or speaking</li> <li>Read grade level text fluently with accuracy, appropriate rate, and expression to support comprehension</li> </ul>	
Extended Learning Jr. First Lego League	<b>Research &amp; Inquiry Skill for Content Integration</b> <ul style="list-style-type: none"> <li>Dictionary/Glossary</li> <li>Maps</li> <li>Magazine</li> <li>Encyclopedia</li> <li>Paraphrase Sources</li> </ul>	<b>JGB</b> <ul style="list-style-type: none"> <li>The Man Whose Trade was Tricks (F)</li> <li>To Fly, The Wright Brothers (NF)</li> <li>Moonshot (NF)</li> <li>The Man who walked between the towers (NF)</li> <li>Thomas Edison (NF)</li> <li>Alexander Graham Bell (NF)</li> </ul>		
<b>Targeted ELA Standards: SPEAKING &amp; LISTENING</b>	<b>Targeted ELA Standards: READING</b>	<b>Targeted ELA Standards: WRITING</b>	<b>Targeted ELA Standards: LANGUAGE</b>	<b>Targeted ELA Standards: FOUNDATIONAL SKILLS</b>
<b>SL.3.2</b> Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. <b>SL.3.4</b> Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at	<b>RI.3.1</b> Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. <b>RI.3.2</b> Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text. <b>RI.3.2</b> Determine the main idea of a text; recount the key details and explain how they support the main idea. <b>RI.3.3</b> Describe the relationship between a series of historical events,	<b>W.3.1</b> Write opinion pieces on topics or texts, supporting a point of view with reasons. <b>A)</b> Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. <b>B)</b> Provide reasons that support the opinion. <b>C)</b> Use linking words and phrases (e.g., <i>because, therefore, since, for example</i> ) to connect opinion and reasons.	<b>L.3.1</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <b>A)</b> Independently and legibly write all upper- and lower-case cursive letters <b>C)</b> Explain the function of nouns, pronouns, verbs adjective, and adverbs in general and their functions in particular	<b>RF.3.4</b> Read with sufficient accuracy and fluency to support comprehension. <b>A)</b> Read grade-level text with purpose and understanding. <b>B)</b> Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on

an understandable pace.	scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. <b>RI.3.9</b> Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series). <b>RI.3.9</b> Compare and contrast the most important points and key details presented in two texts on the same topic.	<b>D)</b> Provide a concluding statement or section. <b>W.3.5</b> With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. <b>W.3.6</b> With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.	sentence. <b>D)</b> Form and use regular and irregular plural nouns. <b>E)</b> Use abstract nouns. <b>L.3.2</b> Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. d) Form and use possessives	successive readings. <b>C)</b> Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
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	Question of the Week	Main Selection	Target Phonics/Word Analysis
<b>Week 1</b>	How do the structures of plants and animals help them solve problems?	Penguin Chick	Syllables V/CV
<b>Week 2</b>	How do you know if a solution is a good solution?	I Wanna Iguana	Final Syllable –le
<b>Week 3</b>	When is it time to find a solution?	Prudy’s Problem and How She Solved It	Compound Words
<b>Week 4</b>	What can we do to make sure solutions are fair?	Tops and Bottoms	Consonant Blends: squ, spl, thr, str, scr
<b>Week 5</b>	How have plants and animals adapted to solve problems?	Amazing Bird Nests	consonant Digraphs /sh/, /th/, /ph/, /ch/, /ng/
<b>Week 6</b>	Interactive Review		Review

**Targeted Technology Standard**

**ISTE #4 Critical Thinking, Problem Solving, and Decision Making:** Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

- a. Identify and define authentic problems and significant questions for investigation
- b. Plan and manage activities to develop a solution or complete a project
- c. Collect and analyze data to identify solutions and/or make informed decisions
- d. Use multiple processes and diverse perspectives to explore alternative solutions

**Content Integration**

(additional resources found in Content Integration Map)

Social Studies Connections	Science Connections
	Week 1: <b><u>Penguin Chick</u></b> Week 2: <b><u>I Wanna Iguana</u></b> Week 5: <b><u>Amazing Bird Nests</u></b>

# 3<sup>rd</sup> Grade Scope and Sequence

Unit 3: December 5-February 3

Flexible Pacing: 35 instructional days

Unit 3 Theme: People and Nature				
Big Question	Targeted Comprehension Skill/Strategy	Writing from <u>Writing to Sources</u>	Report Card Learning Targets	
			I can...	
How are people and nature connected?	<ul style="list-style-type: none"> <li>• Draw Conclusions</li> <li>• Compare and Contrast</li> <li>• Cause and Effect</li> <li>• Author's Purpose</li> </ul>	INFORMATIVE/ EXPLANATORY	<ul style="list-style-type: none"> <li>• Engage effectively in conversations by coming prepared, following discussion rules, building upon other's ideas, and asking for clarification</li> <li>• Ask and answer questions to demonstrate understanding referring to the text</li> <li>• Identify the main idea and key details</li> <li>• Recognize the structure (e.g., sequence, stanza, images)</li> <li>• Write informational texts to convey ideas with supporting details</li> <li>• Use grammar skills when writing or speaking</li> <li>• Use context clues, affixes, and roots to determine the meaning of vocabulary words and phrases</li> </ul>	
Extended Learning Jr. First Lego League	<b>Research &amp; Inquiry Skill for Content Integration</b> <ul style="list-style-type: none"> <li>• Card Catalog</li> <li>• Thesaurus</li> <li>• Almanac</li> <li>• Take Notes and Record Findings</li> <li>• Newspapers</li> </ul>	<b>JGB</b> <ul style="list-style-type: none"> <li>• Jean Labadie's Big Black Dog (F)</li> <li>• Whales (NF)</li> <li>• What the World Eats? (NF)</li> </ul>		
Targeted ELA Standards: SPEAKING & LISTENING	Targeted ELA Standards: READING	Targeted ELA Standards: WRITING	Targeted ELA Standards: LANGUAGE	Targeted ELA Standards: FOUNDATIONAL SKILLS
<b>SL.3.1</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 3 topics and texts</i> , building on others' ideas and expressing their own clearly. <b>C)</b> Ask questions to check understanding of information presented, stay on topic, and link their comments to the	<b>RL &amp; RI.3.1</b> Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. <b>RL.3.2</b> Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text. <b>RI.3.3</b> Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions	<b>W 3.2</b> Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <b>A)</b> Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. <b>B)</b> Develop the topic with facts, definitions,	<b>L.3.1</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <b>A)</b> Independently and legibly write all upper-and lower-case cursive letters <b>F)</b> Form and use regular and irregular verbs <b>G)</b> Form & use the simple (e.g., <i>I walked; I walk; I will walk</i> ) verb tenses. <b>L.3.2</b> Demonstrate command of the	<b>RF 3.3</b> Know and apply grade-level phonics & word analysis skills in decoding words. <b>A)</b> Identify & know the meaning of the most common prefixes & derivational suffixes. <b>B)</b> Decode words with common

<p>remarks of others.</p> <p><b>D)</b> Explain their own ideas and understanding in light of the discussion.</p> <p><b>SL.3.2</b> Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p> <p><b>SL.3.4</b> Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p>	<p>contribute to the sequence of events</p> <p><b>RI.3.3</b> Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</p> <p><b>RI.3.6</b> Distinguish their own point of view from that of the narrator or those of the characters.</p> <p><b>RI.3.6</b> Distinguish their own point of view from that of the author of a text</p> <p><b>RI.3.8</b> Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).</p>	<p>&amp; details.</p> <p><b>C)</b> Use linking words and phrases (e.g., <i>also</i>, <i>another</i>, <i>and</i>, <i>more</i>, <i>but</i>) to connect ideas within categories of information.</p> <p><b>D)</b> Provide a concluding statement or section.</p> <p><b>W.3.8</b> Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.</p>	<p>conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p><b>E)</b> Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words</p> <p><b>F)</b> Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns ending rule, meaningful word parts) in writing words</p> <p><b>G)</b> Consult reference materials, including beginning dictionaries, as needed to check &amp; correct spellings.</p>	<p>Latin suffixes.</p> <p><b>C)</b> Decode multisyllable words.</p> <p><b>D)</b> Read grade-appropriate irregularly spelled words.</p>
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	Question of the Week	Main Selection	Target Phonics/Word Analysis
<b>Week 1</b>	How do people and nature interact?	How Do You Raise a Raisin?	Contractions
<b>Week 2</b>	How do people explain things in nature?	Pushing Up The Sky	Prefixes un-, re-, mis-, dis-, non-
<b>Week 3</b>	What can we learn about nature by investigating?	Seeing Stars	Spellings /j/, /s/, /k/
<b>Week 4</b>	How can people help animals in danger?	A Symphony of Whales	Suffixes -ly, -ful, -ness, -less, -able, -ible
<b>Week 5</b>	What can we observe in different environments?	Around One Cactus	Consonant Patterns wr, kn, gn, st, mb
<b>Week 6</b>	Interactive review		Review

### Targeted Technology Standard

**ISTE #3 Research and Information Fluency:** Students apply digital tools to gather, evaluate, and use information.

- Plan strategies to guide inquiry
- Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
- Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- Process data and report results

### Content Integration

(additional resources found in Content Integration Map)

Social Studies Connections	Science Connections
<p>Week 1: <b><u>How Do You Raise a Raisin?</u></b></p> <p>Week 2: <b><u>Pushing Up the Sky</u></b></p> <p>Week 4: <b><u>A Symphony of Whales; He Listens to Whales</u></b></p> <p>Week 5: <b><u>Around One Cactus</u></b></p>	<p>Week 3: <b><u>Seeing Stars</u></b></p>

# 3<sup>rd</sup> Grade Scope and Sequence

Unit 4: February 6-March 17

Flexible Pacing: 26 instructional days

Unit 4 Theme: One of a Kind					
Big Question	Targeted Comprehension Skill/Strategy	Writing from <u>Writing to Sources</u>	Report Card Learning Targets		
			I can...		
What does it mean to be unique?	<ul style="list-style-type: none"> <li>Generalize</li> <li>Graphic Sources</li> <li>Fact and Opinion</li> <li>Author's Purpose</li> <li>Cause and Effect</li> </ul>	NARRATIVE	<ul style="list-style-type: none"> <li>Ask and answer questions to demonstrate understanding referring to the text</li> <li>Recognize the structure (e.g., sequence, stanza, images)</li> <li>Compare and contrast the author's and reader's point of view</li> <li>Write narrative text to develop real or imagined experiences</li> <li>Use grammar skills when writing or speaking</li> <li>Read grade level text fluently with accuracy, appropriate rate, and expression to support comprehension</li> </ul>		
Extended Learning Teacher's Choice	<b>Research &amp; Inquiry Skill for Content Integration</b> <ul style="list-style-type: none"> <li>Dictionary</li> <li>Bar Graphs</li> <li>Online Information</li> <li>Outlining/Summarizing</li> </ul>		<b>JGB</b> <ul style="list-style-type: none"> <li>The Ugly Duckling (F)</li> <li>The Upside Down Boy (F)</li> <li>The Green Man (F)</li> <li>The Monster who grew Small (F)</li> <li>The Man who walked between the towers (NF)</li> <li>Thomas Edison (NF)</li> <li>Alexander Graham Bell (NF)</li> <li>The Museum Book (NF)</li> <li>The Train of States (NF)</li> <li>The Presidents (NF)</li> <li>The Mushroom Man (F)</li> </ul>		
<b>Targeted ELA Standards: SPEAKING &amp; LISTENING</b>	<b>Targeted ELA Standards: READING</b>		<b>Targeted ELA Standards: WRITING</b>	<b>Targeted ELA Standards: LANGUAGE</b>	<b>Targeted ELA Standards: FOUNDATIONAL SKILLS</b>
<b>SL.3.1</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 3 topics and texts</i> , building on others' ideas and expressing their own	<b>RL &amp; RI.3.1</b> Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. <b>RL.3.3</b> Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events. <b>RI.3.3</b> Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, <b>RI 3.5</b> Use text features and search tools (e.g., key		<b>W.3.3</b> Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. <b>A)</b> Establish a situation and introduce a narrator and/or characters; organize an event sequence that	<b>L.3.1</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <b>D)</b> Produce grade-appropriate text using legible cursive writing. <b>D)</b> Ensure subject-verb and pronoun-antecedent agreement* <b>L.3.2</b> Demonstrate command of	<b>RF.3.4</b> Read with sufficient accuracy and fluency to support comprehension. <b>A)</b> Read grade-level text with purpose and understanding. <b>B)</b> Read grade-level prose and

<p>clearly.</p> <p><b>D)</b> Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</p> <p><b>E)</b> Explain their own ideas and understanding in light of the discussion.</p> <p><b>SL.3.3</b> Ask &amp; answer questions about information from a speaker, offering appropriate elaboration &amp; detail.</p>	<p>words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.</p> <p><b>RI.3.6</b> Distinguish their own point of view from that of the narrator or those of the characters.</p> <p><b>RI.3.6</b> Distinguish their own point of view from that of the author of a text.</p> <p><b>RI.3.7</b> Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting)</p> <p><b>RI.3.7</b> Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</p> <p><b>RI.3.9</b> Compare &amp; contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series)</p> <p><b>RI.3.9</b> Compare &amp; contrast the most important points and key details presented in two texts on the same topic.</p>	<p>unfolds naturally.</p> <p><b>B)</b> Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.</p> <p><b>C)</b> Use temporal words and phrases to signal event order.</p> <p><b>D)</b> Provide a sense of closure.</p> <p><b>W.3.8</b> Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.</p>	<p>the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p><b>D)</b> Form and use possessives</p> <p><b>F)</b> Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns ending rule, meaningful word parts) in writing words</p> <p><b>L.3.6</b> Acquire &amp; use accurately conversational, general academic, &amp; domain-specific words &amp; phrases, including those that signal spatial &amp; temporal relationships (e.g., After dinner that night we went looking for them).</p>	<p>poetry orally with accuracy, appropriate rate, and expression on successive readings.</p> <p><b>C)</b> Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>
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	Question of the Week	Main Selection	Target Phonics/Word Analysis
<b>Week 1</b>	How do talents make someone unique?	The Man Who Invented Basketball	Irregular Plurals
<b>Week 2</b>	What makes nature's record holders unique?	Hottest, Coldest, Highest, Deepest	Vowels: r-controlled ir, er, ur, ear, or, and ar, or, ore, oar
<b>Week 3</b>	Why is it valuable to have unique interests?	Rocks in His Head	Prefixes pre-, mid-, over-, out-, bi-, de-
<b>Week 4</b>	What unique traits does it take to be the first to do something?	America's Champion Swimmer Gertrude Ederle	Suffixes -er, -or, -ess, -ist
<b>Week 5</b>	What behaviors are unique to different animals?	Fly Eagle fly!	Syllables VCCCV
<b>Week 6</b>	Interactive Review		Review

**Targeted Technology Standard**

**ISTE #1 Creativity and Innovation:** Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

- Apply existing knowledge to generate new ideas, products, or processes
- Create original works as a means of personal or group expression
- Use models and simulations to explore complex systems and issues
- Identify trends and forecast possibilities

**Content Integration**  
(additional resources found in Content Integration Map)

Social Studies Connections	Science Connections
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NA	NA
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# 3<sup>rd</sup> Grade Scope and Sequence

Unit 5: March 20-May 5

Flexible Pacing: 30 instructional days

Unit 5 Theme: Cultures				
Big Question	Targeted Comprehension Skill/Strategy	Writing from <u>Writing to Sources</u>	Report Card Learning Targets	
What happens when two ways of life come together?	<ul style="list-style-type: none"> <li>Compare and Contrast</li> <li>Main Idea and Supporting Details</li> <li>Draw Conclusions</li> </ul>	OPINION	<b>I can...</b> <ul style="list-style-type: none"> <li>Engage effectively in conversations by coming prepared, following discussion rules, building upon other's ideas, and asking for clarification</li> <li>Ask and answer questions to demonstrate understanding referring to the text</li> <li>Identify the main idea and key details</li> <li>Compare and contrast the author's and reader's point of view</li> <li>Write opinion pieces using organized reasons</li> <li>Use grammar skills when writing or speaking</li> <li>Use technology to produce and publish writing</li> </ul>	
Extended Learning Teacher's Choice	<b>Research &amp; Inquiry Skill for Content Integration</b> <ul style="list-style-type: none"> <li>Newsletter</li> <li>Maps</li> <li>Atlas</li> <li>Outlining</li> <li>Electronic Text</li> </ul>	<b>JGB</b> <ul style="list-style-type: none"> <li>The Banza (F)</li> <li>White Wave (F)</li> <li>Two Wise Children (F)</li> <li>The Selkie Girl (F)</li> <li>14 Cows for America (NF)</li> <li>What the World Eats? (NF)</li> <li>Ooka and the Honest Thief (F)</li> <li>The Princess and the Beggar (F)</li> </ul>		
<b>Targeted ELA Standards: SPEAKING &amp; LISTENING</b>	<b>Targeted ELA Standards: READING</b>	<b>Targeted ELA Standards: WRITING</b>	<b>Targeted ELA Standards: LANGUAGE</b>	<b>Targeted ELA Standards: FOUNDATIONAL SKILLS</b>
<b>SL.3.1</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 3 topics and texts</i> , building on others' ideas and expressing their own clearly. <b>C)</b> Ask questions to check understanding of information	<b>RL &amp; RI.3.1</b> Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. <b>RL.3.2</b> Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text. <b>RI 3.2</b> Determine the main idea of a text; recount the key details and explain how they support the main idea. <b>RL.3.3</b> Describe characters in a story (e.g., their traits, motivations, or feelings) and	<b>W.3.1</b> Write opinion pieces on topics or texts, supporting a point of view with reasons <b>A)</b> Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. <b>B)</b> Provide reasons that support the opinion. <b>C)</b> Use linking words and phrases (e.g., <i>because, therefore, since, for example</i> ) to connect opinion and reasons.	<b>L.3.1</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <b>B)</b> Produce grade-appropriate text using legible cursive writing. <b>I)</b> Use comparative and superlative adjectives and adverbs and choose between them	<b>RF 3.3</b> Know and apply grade-level phonics and word analysis skills in decoding words. <b>A)</b> Identify and know the meaning of the most common prefixes and derivational suffixes. <b>B)</b> Decode words with common Latin suffixes.

presented, stay on topic, and link their comments to the remarks of others. <b>D)</b> Explain their own ideas and understanding in light of the discussion. <b>SL.3.2</b> Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	explain how their actions contribute to the sequence of events. <b>RI.3.3</b> Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, <b>RI.3.6</b> Distinguish their own point of view from that of the narrator or those of the characters. <b>RI.3.6</b> Distinguish their own point of view from that of the author of a text. <b>RI.3.9</b> Compare & contrast the themes, settings, & plots of stories written by the same author about the same or similar characters (e.g., in books from a series). <b>RI.3.9</b> Compare & contrast the most important points & key details presented in two texts on the same topic.	<b>D)</b> Provide a concluding statement or section. <b>W.3.4</b> With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. <b>W.3.5</b> With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. <b>W.3.6</b> With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.	depending on what is to be modified. <b>J)</b> Use coordinating and subordinating conjunctions. <b>L.3.2</b> Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. <b>E)</b> Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words	<b>C)</b> Decode multisyllable words. <b>D)</b> Read grade-appropriate irregularly spelled words.
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	Question of the Week	Main Selection	Target Phonics/Word Analysis
<b>Week 1</b>	How does culture influence the clothes we wear?	Suki's Kimono	Syllable Pattern CVVC
<b>Week 2</b>	How are cultures alike and different?	I Love Saturdays y Domingos	Homophones
<b>Week 3</b>	Why is it hard to adapt to new culture?	Good Bye, 382 Shin Dang Dong	Vowel Patterns for /o/
<b>Week 4</b>	How can different cultures contribute to the foods we eat?	Jalapeño Bagels	Vowel Patterns ei, eigh
<b>Week 5</b>	How does city life compare to life in the country?	Me and Uncle Romie	Suffixes -y, -ish, -hood, -ment
<b>Week 6</b>	Interactive Review		Review

**Targeted Technology Standard**

**ISTE #5 Digital Citizenship:** Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

- Advocate and practice safe, legal, and responsible use of information and technology
- Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
- Demonstrate personal responsibility for lifelong learning
- Exhibit leadership for digital citizenship

**Content Integration**  
(additional resources found in Content Integration Map)

Social Studies Connections	Science Connections
Week 1: <a href="#">Suki's Kimono</a> Week 2: <a href="#">I Love Saturdays y Domingos</a> Week 3: <a href="#">Good-Bye, 382 shin Dang Dong</a> Week 4: <a href="#">Jalapeno Bagels</a> Week 5: <a href="#">Me and Uncle Romie</a>	NA

# 3<sup>rd</sup> Grade Scope and Sequence

Unit 6: May 8-June 7

Flexible Pacing: 21 instructional days

Unit 6 Theme: Freedom					
Big Question	Targeted Comprehension Skill/Strategy	Writing from <u>Writing to Sources</u>	Report Card Learning Targets		
What does freedom mean?	<ul style="list-style-type: none"> <li>Graphic Sources</li> <li>Theme, Plot</li> <li>Sequence</li> <li>Cause and Effect</li> </ul>	INFORMATIVE EXPLANATORY	<b>I can...</b> <ul style="list-style-type: none"> <li>Identify the main idea and key details</li> <li>Recognize the structure (e.g., sequence, stanza, images)</li> <li>Compare and contrast the author's and reader's point of view</li> <li>Write informational texts to convey ideas with supporting details</li> <li>Use grammar skills when writing or speaking</li> <li>Read grade level text fluently with accuracy, appropriate rate, and expression to support comprehension</li> </ul>		
Extended Learning Teacher's Choice	<b>Research &amp; Inquiry Skill for Content Integration</b> <ul style="list-style-type: none"> <li>Timeline</li> <li>Maps</li> <li>Alphabetical Order</li> <li>Electronic Text</li> <li>Quote Source/Paraphrase Source</li> </ul>		<b>JGB</b> <ul style="list-style-type: none"> <li>The Housewife (F)</li> <li>It's All the Fault of Adam (F)</li> <li>Coming Home (NF)</li> <li>Shh! We're Writing the Constitution (NF)</li> </ul>		
<b>Targeted ELA Standards: SPEAKING &amp; LISTENING</b>	<b>Targeted ELA Standards: READING</b>		<b>Targeted ELA Standards: WRITING</b>	<b>Targeted ELA Standards: LANGUAGE</b>	<b>Targeted ELA Standards: FOUNDATIONAL SKILLS</b>
<p><b>SL.3.4</b> Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p> <p><b>SL.3.5</b> Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.</p> <p><b>SL.3.6</b> Speak in complete sentences when</p>	<p><b>RL &amp; RI.3.1</b> Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p><b>RI.3.2</b> Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.</p> <p><b>RI 3.2</b> Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p><b>RI.3.3</b> Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.</p> <p><b>RI.3.3</b> Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time,</p> <p><b>RI.3.6</b> Distinguish their own point of view from</p>		<p><b>W 3.2</b> Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <p><b>A)</b> Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</p> <p><b>B)</b> Develop the topic with facts, definitions, and details.</p> <p><b>C)</b> Use linking words and phrases (e.g., <i>also, another, and, more, but</i>) to connect ideas within categories of</p>	<p><b>L.3.1</b> Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p><b>B)</b> Produce grade-appropriate text using legible cursive writing.</p> <p><b>K)</b> Produce simple, compound and complex sentences</p> <p><b>L.3.2</b> Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling</p>	<p><b>RF.3.4</b> Read with sufficient accuracy and fluency to support comprehension.</p> <p><b>A)</b> Read grade-level text with purpose and understanding.</p> <p><b>B)</b> Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.</p> <p><b>C)</b> Use context to confirm or self-</p>

appropriate to task and situation in order to provide requested detail or clarification.	that of the narrator or those of the characters. <b>RI.3.6</b> Distinguish their own point of view from that of the author of a text. <b>RI.3.7</b> Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting) <b>RI.3.7</b> Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).	information. <b>D)</b> Provide a concluding statement or section. <b>W.3.7</b> Conduct short research projects that build knowledge about a topic. <b>W.3.8</b> Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	when writing. <b>A)</b> Capitalize appropriate words in titles. <b>B)</b> Use commas in addresses <b>C)</b> Use commas and quotation marks in dialogue	correct word recognition and understanding, rereading as necessary.
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	Question of the Week	Main Selection	Target Phonics/ Word Analysis
<b>Week 1</b> 10 Days	Why do we have symbols that represent freedom?	The Story of the Statue of Liberty	Vowel Sounds /ū/ and /ōō/
<b>Week 2</b>	What does it mean to grant freedom?	Happy Birthday Mr. Kang	Schwa
<b>Week 3</b> 9 Days	Why is freedom of expression important?	Talking Walls: Art for the People	Final Syllables
<b>Week 4</b> 9 Days	Why are rules and laws important to freedom?	Two Bad Ants	Prefixes im-, in-
<b>Week 5</b>	What is the best way to keep your freedom?	Atlantis: The Legend of a Lost City	Related words
<b>Week 6</b>	Interactive Review		Review

Pacing suggestions for Unit 6: Due to shortened instructional time during the SAGE testing window, it is suggested to teach Weeks 1, 3, & 4 only. Weeks 1, 3, & 4 will be the instruction for Unit 6. Skills in Weeks 2 & 5 are spiraled in grade 4. CFA for Unit 6 is not required.

### Targeted Technology Standard

**ISTE #2 Communication and Collaboration:** Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

- Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats
- Develop cultural understanding and global awareness by engaging with learners of other cultures
- Contribute to project teams to produce original works or solve problems

### Content Integration

(additional resources found in Content Integration Map)

Social Studies Connections	Science Connections
Week 1: <b><u>The Story of the Statue of Liberty</u></b>	NA

## Skill-Based Instruction Implementation Considerations

When planning for skill-based instruction, it is important to consider the unique needs of students who qualify for specialized services such as English Language Development (ELD) and special education. When grouping students, it may be necessary to provide additional groupings for English Language Learners who are classified as WIDA Levels 1-4 or students who have an IEP. Additional groupings support the responsibilities educators have in ensuring that all students receive the support needed to be successful. The graphic below shows the possible groupings for all students. Additional information about the focus of instruction can be viewed on following pages of this map and in the DIBELS Pathways of Progress Report.

Once students are grouped, for ELD, Special Education, and Groups 2-4, it is critical to provide explicit, systematic instruction with ample practice opportunities and specific feedback to fill in skill gaps. Finally, progress should be monitored more frequently for these groups to ensure that instruction is supporting students' growth towards mastery of identified outcomes.

ELD (30+ minutes)		Special Education	
Language Central Curriculum and applicable group instruction <b>OR</b> Reading Street ELL Handbook and applicable group instruction using Lesson Plans for ELD Small Group (Fluency & Frontload)		<ul style="list-style-type: none"> <li>• Reading Mastery</li> <li>• Reading Mastery Core Lesson Connections</li> <li>• Corrective Reading</li> <li>• 6 Minute Solution</li> </ul>	
Additional ELD Instruction (15+ minutes)			
<ul style="list-style-type: none"> <li>• ELL Pages in the Reading Street Teacher Edition or ELL Handbook</li> <li>• RTI Kit</li> </ul>			
Group 1 – Benchmark Rate & Accurate	Group 2 – Below Benchmark Rate & Accurate	Group 3 – Benchmark Rate & Inaccurate	Group 4 - Below Benchmark & Inaccurate
Focus of Instruction: • Comprehension and Vocabulary	Focus of Instruction: • Fluency	Focus of Instruction: • Self Monitoring for Accuracy	Focus of Instruction: • PA and Phonics
Resources	Resources	Resources	Resources
<ul style="list-style-type: none"> <li>• RTI Kit</li> <li>• Group 1 Lesson Plan(s)</li> </ul>	<ul style="list-style-type: none"> <li>• RTI Kit</li> <li>• Group 2 Lesson Plan(s)</li> </ul>	<ul style="list-style-type: none"> <li>• RTI Kit</li> <li>• Group 3 Lesson Plan(s)</li> </ul>	<ul style="list-style-type: none"> <li>• RTI Kit</li> <li>• Group 4 Lesson Plan(s)</li> </ul>

## INSTRUCTIONAL SORT

### 3<sup>rd</sup> Grade

Refer to the DIBELSnet Pathways of Progress Report. Use that information to establish four groups. Select criterion report based on DIBELSnext benchmarks. Using the criteria outlined in the table below, begin to group students accordingly. An additional, blank sort is provided at the back of this section to record groups.

<p><b>Group 1: Accurate &amp; Benchmark Rate</b>            FALL: Met benchmark on DORF with at least 95% accuracy</p> <p>WINTER: Met benchmark on DORF with at least 96% accuracy</p> <p>SPRING: Met benchmark on DORF with at least 97% accuracy</p>	<p><b>Group 2: Accurate &amp; Below Benchmark Rate</b>            FALL: Below benchmark on DORF with at least 95% accuracy</p> <p>WINTER: FALL: Below benchmark on DORF with at least 96% accuracy</p> <p>SPRING: FALL: Below benchmark on DORF with at least 97% accuracy</p>
<p><b>Group 3: Inaccurate &amp; Below Benchmark Rate</b>            FALL: Below benchmark on DORF with less than 95% accuracy</p> <p>WINTER: Below benchmark on DORF with less than 96% accuracy</p> <p>SPRING: Below benchmark on DORF with less than 97% accuracy</p>	<p><b>Group 4: Inaccurate &amp; Benchmark Rate</b>            FALL: Met benchmark on DORF with less than 95% accuracy</p> <p>WINTER: Met benchmark on DORF with less than 96% accuracy</p> <p>SPRING: Met benchmark on DORF with less than 97% accuracy</p>

# 3<sup>rd</sup> Grade

## Focus of Instruction & Materials

<p><b>Group 1:</b> Accurate &amp; Benchmark Rate</p> <p><b>Focus of Instruction: Comprehension</b></p> <ul style="list-style-type: none"> <li>Monitoring for meaning</li> <li>Identifying, summarizing, and extending main ideas</li> <li>Self-monitoring and fix-up strategies and awareness of reading for understanding</li> <li>Teaching important words directly and word-learning strategies</li> <li>Extended reading and writing opportunities tied to Core subjects</li> </ul> <p><b>Instructional Materials:</b></p> <ul style="list-style-type: none"> <li>Literary and Informational Text</li> <li>Reading Street Small Group: Advanced Level lessons</li> <li>Word Study (vocabulary, derivations, etc.)</li> <li>Reading Street: Rtl Kit Comprehension and/or Vocabulary</li> <li>Reading Street: Research and Inquiry Lessons</li> </ul>	<p><b>Group 2:</b> Accurate &amp; Below Benchmark Rate</p> <p><b>Focus of Instruction: Fluency</b></p> <ul style="list-style-type: none"> <li>Building automaticity, and do not ignore making meaning</li> <li>Repeated readings</li> <li>Word or phrase level automaticity in addition to passages, if necessary</li> <li>Grouping words to make meaning, pacing punctuation</li> <li>Read for main idea, summarizing, and/or text elements</li> <li>Teach accuracy, rate and prosody after identifying need</li> </ul> <p><b>Instructional Materials:</b></p> <ul style="list-style-type: none"> <li>Reading Street: Decodable Readers (Grades 2-3)</li> <li>Reading Street: Fluency passages</li> <li>Reading Street: Fresh Reads</li> <li>Reading Street Small Group: On-Level lessons (OL)</li> <li>Sight Words/Fry Phrases Speed Drills</li> <li>Reading Street: Rtl Kit Fluency</li> </ul>
<p><b>Group 3:</b> Inaccurate &amp; Benchmark Rate</p> <p><b>Focus of Instruction: Self Monitoring for Accuracy (Digging Deeper into Needs)</b></p> <ul style="list-style-type: none"> <li>Explicit modeling of accurate reading</li> <li>Self-monitoring—table tap when student makes an error. This will help the student slow down and read more accurately.</li> <li>Challenge student to read a portion of the text with 2 or fewer errors</li> <li>Teach student to adjust rate of reading to type of text and purpose for reading</li> </ul> <p><b>Instructional Materials:</b></p> <ul style="list-style-type: none"> <li>Reading Street: Decodable Readers (Grades 2-3)</li> <li>Reading Street: Phonics and Word Analysis</li> <li>Reading Street Small Group: Strategic Intervention lessons (SI)</li> <li>Reading Street: Fresh Reads</li> </ul>	<p><b>Group 4:</b> Inaccurate &amp; Below Benchmark Rate</p> <p><b>Focus of Instruction: Phonics and/or Phonological Awareness</b></p> <ul style="list-style-type: none"> <li>Missing phonemic awareness skills</li> <li>Missing decoding skills</li> <li>Missing sight words skills</li> <li>Missing multi-syllabic decoding skills</li> <li>Applying skills to connected text at instructional level</li> <li>Building fluency at independent level</li> <li>Substantial practice applying phonics to new text and writing</li> <li><i>Use Core Phonics Screener Alignment Guide</i> to identify skill deficits and areas of targeted instruction</li> </ul> <p><b>Instructional Materials:</b></p> <ul style="list-style-type: none"> <li>Reading Street Decodable Readers (Grades 2-3)</li> <li>CSD Decodable Database</li> <li>Reading Street Phonics and Word Analysis</li> <li>Reading Street Small Group Strategic Intervention lessons (SI)</li> <li>Florida Center on reading Research (FCRR)—Phonemic Awareness and Phonics Activities</li> <li>Reading Street Rtl Kit Phonemic Awareness and /or Phonics and Decoding</li> <li>Sight Words/Fry Phrases Speed Drills</li> </ul>



# DIBELS® Next Initial Instructional Grouping Suggestions

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## Initial Grouping Suggestions

The groupings provided by these worksheets are considered *initial suggestions* because the teacher must further revise these groupings based on other information about students' skill levels, available resources, and magnitude of student need.

## Three Levels of Instructional Support

The following three levels of instructional support are identified for individual DIBELS scores as well as the overall DIBELS Composite Score:

- *At or Above Benchmark: Likely to Need Core Support* – Student's scores are at or above the benchmark for their grade and time of year; students performing at this level are likely to need effective core instruction to reach subsequent goals.
  - Generally **80%–90%** probability of reaching subsequent important reading goals.
  - Provide generally effective core curriculum and instruction focused on the core components of early literacy and reading.
- *Below Benchmark: Likely to Need Strategic Support* – Student's scores are below the benchmark for their grade and time of year; students performing at this level are likely to need additional targeted intervention and support to reach subsequent goals.
  - Generally **40%–60%** probability of reaching subsequent important reading goals.
  - Provide extra practice; adaptations of core curriculum; small group instruction with supplementary program.
- *Well Below Benchmark: Likely to Need Intensive Support* – Student's scores are well below the benchmark for their grade and time of year; students performing at this level are likely to need substantial additional intervention and support to reach subsequent goals.
  - Generally **10%–20%** probability of reaching subsequent important reading goals.
  - Provide focused, explicit instruction with supplementary intensive curriculum; small group/individual instruction.

## Validating Need for Support

Within the Outcomes Driven Model, an important step is validating need for support. At this step, ask, "Are we confident that the identified students need support?" If there is any doubt in making the decision regarding whether a student is on track or not with respect to a core component, additional information should be obtained. The goal is to be reasonably confident in the decision that the student is on track or not. Additional information may be obtained by retesting with alternate forms of the corresponding DIBELS measure, by administering a brief diagnostic assessment, or by considering other assessment and performance information available on the student.

## Building Accuracy and Fluency

The goal in each core component area is for the student to demonstrate proficiency with the skill by being highly accurate as well as fluent and confident in their answers. Build accuracy with a focus on accurate and fluent word reading and decoding, advanced phonics, and word attack skills. Incorporate fluency building activities on mastery-level material where the student is highly accurate. Consider using survey-level assessment to identify the appropriate progress monitoring level, instructional level, and mastery level.

## Core Components of Early Literacy

It is important to analyze and use all of the information available on a student's skills. These initial instructional grouping worksheets provide an initial focus on the two most salient core components at each assessment time. Vocabulary and oral language skills are another core component of early literacy that should be considered when planning instructional groups.

## School-Wide, Systems-Level Considerations

If a large number of students fall in any of the instructional grouping recommendations other than Group 1, consider supplementing the system of core instruction to address the corresponding skill areas.

# 3 Grade 3 Beginning of Year Initial Instructional Grouping Suggestions

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Group 1: Likely to Need Core Support			
Reading Comprehension	At or Above Benchmark (Put a check mark in the Retell column if score is 20+)		
Accurate and Fluent Reading of Connected Text	At or Above Benchmark (DORF–Words Correct is 70 or higher <i>and</i> DORF–Accuracy is 95% or higher)		
Name	DORF–Words Correct 70+	<i>and</i> DORF–Accuracy 95%+	Retell 20+

Group 2: Additional support on reading fluency skills			
Fluent Reading of Connected Text	Below or Well Below Benchmark (DORF–Words Correct is below 70)		
Accurate Reading of Connected Text	At or Above Benchmark (DORF–Accuracy is 95% or higher)		
Name	DORF–Words Correct 0–69	<i>and</i> DORF–Accuracy 95%+	

Group 3: Additional support on the accurate reading of connected text skills			
Fluent Reading of Connected Text	At or Above Benchmark (DORF–Words Correct is 70 or higher)		
Accurate Reading of Connected Text	Below or Well Below Benchmark (DORF–Accuracy is below 95%)		
Name	DORF–Words Correct 70+	<i>and</i> DORF–Accuracy 0–94%	

Group 4: Additional support on the accurate and fluent reading of connected text skills			
Fluent Reading of Connected Text	Below or Well Below Benchmark (DORF–Words Correct is below 70)		
Accurate Reading of Connected Text	Below or Well Below Benchmark (DORF–Accuracy is below 95%)		
Name	DORF–Words Correct 0–69	<i>and</i> DORF–Accuracy 0–94%	

Note. If a large number of students fall in any of the instructional grouping recommendations other than Group 1, consider supplementing core instruction addressing the corresponding skill areas.

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# 3 Grade 3 Middle of Year Initial Instructional Grouping Suggestions

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Group 1: Likely to Need Core Support			
Reading Comprehension	At or Above Benchmark (Put a check mark in the Retell column if score is 26+)		
Accurate and Fluent Reading of Connected Text	At or Above Benchmark (DORF–Words Correct is 86 or higher <i>and</i> DORF–Accuracy is 96% or higher)		
Name	DORF–Words Correct 86+	<i>and</i> DORF–Accuracy 96%+	Retell 26+

Group 2: Additional support on reading fluency skills			
Fluent Reading of Connected Text	Below or Well Below Benchmark (DORF–Words Correct is below 86)		
Accurate Reading of Connected Text	At or Above Benchmark (DORF–Accuracy is 96% or higher)		
Name	DORF–Words Correct 0–85	<i>and</i> DORF–Accuracy 96%+	

Group 3: Additional support on the accurate reading of connected text skills			
Fluent Reading of Connected Text	At or Above Benchmark (DORF–Words Correct is 86 or higher)		
Accurate Reading of Connected Text	Below or Well Below Benchmark (DORF–Accuracy is below 96%)		
Name	DORF–Words Correct 86+	<i>and</i> DORF–Accuracy 0–95%	

Group 4: Additional support on the accurate and fluent reading of connected text skills			
Fluent Reading of Connected Text	Below or Well Below Benchmark (DORF–Words Correct is below 86)		
Accurate Reading of Connected Text	Below or Well Below Benchmark (DORF–Accuracy is below 96%)		
Name	DORF–Words Correct 0–85	<i>and</i> DORF–Accuracy 0–95%	

Note. If a large number of students fall in any of the instructional grouping recommendations other than Group 1, consider supplementing core instruction addressing the corresponding skill areas.

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# 3 Grade 3 End of Year Initial Instructional Grouping Suggestions

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Group 1: Likely to Need Core Support			
Reading Comprehension	At or Above Benchmark (Put a check mark in the Retell column if score is 30+)		
Accurate and Fluent Reading of Connected Text	At or Above Benchmark (DORF–Words Correct is 100 or higher <i>and</i> DORF–Accuracy is 97% or higher)		
Name	DORF–Words Correct 100+	<i>and</i> DORF–Accuracy 97%+	Retell 30+

Group 2: Additional support on reading fluency skills			
Fluent Reading of Connected Text	Below or Well Below Benchmark (DORF–Words Correct is below 100)		
Accurate Reading of Connected Text	At or Above Benchmark (DORF–Accuracy is 97% or higher)		
Name	DORF–Words Correct 0–99	<i>and</i> DORF–Accuracy 97%+	

Group 3: Additional support on the accurate reading of connected text skills			
Fluent Reading of Connected Text	At or Above Benchmark (DORF–Words Correct is 100 or higher)		
Accurate Reading of Connected Text	Below or Well Below Benchmark (DORF–Accuracy is below 97%)		
Name	DORF–Words Correct 100+	<i>and</i> DORF–Accuracy 0–96%	

Group 4: Additional support on the accurate and fluent reading of connected text skills			
Fluent Reading of Connected Text	Below or Well Below Benchmark (DORF–Words Correct is below 100)		
Accurate Reading of Connected Text	Below or Well Below Benchmark (DORF–Accuracy is below 97%)		
Name	DORF–Words Correct 0–99	<i>and</i> DORF–Accuracy 0–96%	

Note. If a large number of students in any of the instructional grouping recommendations other than Group 1, consider supplementing core instruction addressing the corresponding skill areas.

## Small Group Time Planner

This planner is a recommended sequence for establishing expectations and routines for implementing the skill-based small-group instruction component of the CSD literacy block. If the class is having a hard time following the expectations and routines, it may be necessary to reteach the specific expectations and/or routines with which the students are struggling. An additional consideration may be to decrease the daily minutes spent on small-group time until students can maintain independence at a satisfactory level. The unique needs of each classroom will dictate whether or not this scope and sequence takes 16 days. Please adjust accordingly.

DAY	TIME (min.) (flexible)	Instruction Goal	What is the TEACHER doing?	What are the STUDENTS doing?
<b>Phase I of Skill-Based Small Group Instruction Time: Teacher Monitors</b>				
1	15	Introduce small-group time expectations and routines	<ul style="list-style-type: none"> <li>➤ Teacher explains each of the expectation and routines and routines for small-group time using a poster that will be hung up in the classroom for reference.</li> <li>➤ Teacher chooses students to model each expectation and routine while the whole class watches.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students learn about expectations and routines and discuss the importance of each expectation and routine with the whole group.</li> <li>➤ Individual students model for others what the expectations look and sound like.</li> </ul>
2	15	Practice small-group time expectations and routines	<ul style="list-style-type: none"> <li>➤ Same as Day 1 above</li> </ul>	<ul style="list-style-type: none"> <li>➤ Same as Day 1 above</li> </ul>
3	25	Practice small-group time expectations and routines	<ul style="list-style-type: none"> <li>➤ Teacher quickly reviews each of the expectations and routines for small-group time.</li> <li>➤ Teacher chooses students to model some expectations and routines while the whole class watches.</li> <li>➤ Teacher gives students a task (that needs little explanation) to do independently at their seats.</li> <li>➤ Teacher monitors room; but does not engage</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students listen while teacher reviews expectations and routines.</li> <li>➤ Individual students model for others what the expectations and routines look and sound like.</li> <li>➤ All students work independently at their seats.</li> <li>➤ Students actively participate in a</li> </ul>

Adapted from: Consortium on Reading Excellence Small Group Implementation Small Group Time Planner (2008)

			with students. ➤ Teacher ends small-group time with a debriefing session with whole class.	debriefing session.
4	25		➤ Same as Day 3 above	➤ Same as Day 3 above
5	25		➤ Same as Day 3 above	➤ Same as Day 3 above
6	25	Introduce Practice Station #1	<ul style="list-style-type: none"> <li>➤ Teacher introduces and explains each of the expectations and routines for a Practice Station #1 (e.g. Fluency Station with Fresh Reads) that will be consistently utilized.</li> <li>➤ Teacher chooses students to model each expectation and routine while the whole class watches.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students learn about the selected Practice Station #1 expectations and routines and discuss the importance of each with the whole group.</li> <li>➤ Individual students model for others what the expectations and routines look and sound like.</li> </ul>
7	25	Review expectations and routines for the Practice Station #1	<ul style="list-style-type: none"> <li>➤ Teacher reviews expectations and routines for small group time and the Practice Station #1 from Day 7.</li> <li>➤ Teacher chooses students to model some expectations and routines while the whole class watches.</li> <li>➤ Teacher has whole class practice performing that Practice Station #1.</li> <li>➤ Teacher monitors room; but does not engage with students.</li> <li>➤ Teacher ends small-group time with a debriefing session with whole class.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students learn about the selected Practice Station #1 expectation and routines and discuss the importance of each with the whole group.</li> <li>➤ Individual students model for others what the expectation and routines look and sound like.</li> <li>➤ All students actively work on Practice Station #1.</li> <li>➤ Students actively participate in a debriefing session.</li> </ul>
<b>Phase II: Introduction: Multiple Tasks—Teacher Monitors</b>				
8	45	Practice with Independent Work and Practice Station #1	<ul style="list-style-type: none"> <li>➤ Teacher quickly reviews each of the expectations and routines for small-group time and the Practice Station #1.</li> <li>➤ Teacher chooses students to model some expectations and routines while the whole class watches.</li> <li>➤ Teacher introduces 2-3 independent seatwork tasks and the practice station activity.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students listen while teacher reviews expectations and routines.</li> <li>➤ Individual students are asked to model for others what some of the expectation and routines</li> </ul>

Adapted from: Consortium on Reading Excellence Small Group Implementation Small Group Time Planner (2008)

			<ul style="list-style-type: none"> <li>➤ Teacher lets a group of students move into the Practice Station #1 area to work on the activity while other students remain at their seats.</li> <li>➤ After a set amount of time, teacher assigns a new group to Practice Station #1.</li> <li>➤ Teacher monitors room, but does not engage with students.</li> <li>➤ Teacher ends small-group time with a debriefing session with whole class.</li> </ul>	<ul style="list-style-type: none"> <li>look and sound like.</li> <li>➤ Two groups of students (more groups if length of small-group time is increased) work at Practice Station #1 independently.</li> <li>➤ The remainder of the class works on the independent seatwork tasks.</li> <li>➤ Students actively participate in a debriefing session.</li> </ul>
9	45-60	Practice with Independent Work and Practice Station #1	<ul style="list-style-type: none"> <li>➤ (Same as Day 8 above)</li> </ul>	<ul style="list-style-type: none"> <li>➤ (Same as Day 8 above)</li> </ul>
10	45-60	Introduce Practice Station #2	<ul style="list-style-type: none"> <li>➤ Teacher introduces and explains each of the expectations and routines for Practice Station #2.</li> <li>➤ Teacher chooses students to model each expectation and routine while the whole class watches.</li> <li>➤ Teacher lets a group of students go to the Practice Station #1 and lets a group go to Practice Station #2.</li> <li>➤ Teacher gives the remainder of class 2-3 tasks (that need little explanation) to do independently.</li> <li>➤ Teacher monitors the room, but does not engage with students.</li> <li>➤ Teacher ends small-group time with a debriefing session with whole class.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students learn about Practice Station #2 and discuss the importance of each with the whole group.</li> <li>➤ Individual students model for others what the expectations and routines look and sound like.</li> <li>➤ One group of students works at Practice Station #1.</li> <li>➤ One group of students works at Practice Station #2.</li> <li>➤ The remainder of the class works on independent</li> </ul>

Adapted from: Consortium on Reading Excellence Small Group Implementation Small Group Time Planner (2008)

				<p>tasks at their seats.</p> <ul style="list-style-type: none"> <li>➤ Students actively participate in a debriefing session.</li> </ul>
11	45-60	Practice with Independent Work and Two Practice Stations	<ul style="list-style-type: none"> <li>➤ Teacher quickly reviews each of the expectations and routines for small-group time and Practice Station #2.</li> <li>➤ Teacher chooses students to model some expectations and routines while the whole class watches.</li> <li>➤ Teacher lets a different group of students go to the Practice Station #1 and lets a different group go to Practice Station #2.</li> <li>➤ Teacher gives the remainder of class 2-3 tasks (that need little explanation) to do independently.</li> <li>➤ Teacher monitors the room, but does not engage with students.</li> <li>➤ Teacher ends small-group time with a debriefing session with whole class.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students learn about Practice Station #2 and discuss the importance of each with the whole group.</li> <li>➤ Individual students model for others what the expectations and routines look and sound like.</li> <li>➤ One group of students works at Practice Station #1.</li> <li>➤ One group of students works at Practice Station #2.</li> <li>➤ The remainder of the class works on independent tasks at their seats.</li> <li>➤ Students actively participate in a debriefing session.</li> </ul>
12	45-60	Introduce and Practice with Practice Station #3	<ul style="list-style-type: none"> <li>➤ Teacher introduces and explains each of the expectations and routines for Practice Station #3.</li> <li>➤ Teacher chooses students to model each expectation and routine while the whole class watches.</li> <li>➤ Teacher quickly reviews each of the expectations and routines for small-group time and Practice Stations #1-2 <b>as needed.</b></li> <li>➤ Teacher chooses students to model some expectation and routines while the whole class watches.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students learn about Practice Station #3 expectations and routines and discuss the importance of each with the whole group.</li> <li>➤ Individual students model expectations and routines for others.</li> </ul>

Adapted from: Consortium on Reading Excellence Small Group Implementation Small Group Time Planner (2008)

			<ul style="list-style-type: none"> <li>➤ Teacher chooses students to go to the three areas introduced so far while the rest of the class work on 2-3 independent tasks (new groups may be rotated in as desired).</li> <li>➤ Teacher monitors rooms, but does not engage with students.</li> <li>➤ Teacher ends small-group time with a debriefing session with whole class.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Small groups work at each Practice Station</li> <li>➤ The remainder of the class works on independent tasks.</li> <li>➤ Students actively participate in a debriefing session.</li> </ul>
13	45-60	Introduce and Practice with Practice Station #4	<ul style="list-style-type: none"> <li>➤ Teacher introduces and explains each of the expectations and routines for Practice Station #4.</li> <li>➤ Teacher chooses students to model each expectation and routine while the whole class watches.</li> <li>➤ Teacher quickly reviews each of the expectation and routines for small-group time and Practice Stations #1-3 <b>as needed</b>.</li> <li>➤ Teacher chooses students to model some expectation and routines while the whole class watches.</li> <li>➤ Teacher chooses students to go to the four areas introduced so far while the rest of the class work on 2-3 independent tasks (new groups may be rotated in as desired).</li> <li>➤ Teacher monitors rooms, but does not engage with students.</li> <li>➤ Teacher ends small-group time with a debriefing session with whole class.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students learn about Practice Station #4 expectations and routines and discuss the importance of each with the whole group.</li> <li>➤ Individual students model expectations and routines for others.</li> <li>➤ Small groups work at each Practice Station</li> <li>➤ The remainder of the class works on independent tasks.</li> <li>➤ Students actively participate in a debriefing session.</li> </ul>
<b>Phase III: Multiple Tasks—Teacher Pulls One Group</b>				
14	45-60	Introduce teacher working with small group	<ul style="list-style-type: none"> <li>➤ Teacher quickly reviews each of the expectations and routines for small-group time and Practice Stations as needed, emphasizing the “no interruption” concept.</li> <li>➤ Teacher chooses students to model some expectations and routines while the whole class watches.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students listen while teacher reviews expectations and routines.</li> <li>➤ Individual students are asked to model for others what some of the expectation and routines mean.</li> <li>➤ Students choose from Practice Station options.</li> </ul>

Adapted from: Consortium on Reading Excellence Small Group Implementation Small Group Time Planner (2008)

			<ul style="list-style-type: none"> <li>➤ Teacher gives the independent tasks for small-group time and the Practice Station options.</li> <li>➤ Teacher pulls one group for about 10-15 minutes to work with who needs reteaching/preteaching.</li> <li>➤ Teacher ends small-group time with a debriefing session with whole class.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students move freely from independent tasks and Practice Stations following the directions the teacher has given.</li> <li>➤ Students actively participate in a debriefing session.</li> </ul>
15	45-60		<ul style="list-style-type: none"> <li>➤ Same as Day 14 above</li> </ul>	<ul style="list-style-type: none"> <li>➤ Same as Day 16 above</li> <li>➤</li> </ul>
<b>Phase IV: Multiple Tasks—Teacher Pulls Multiple Groups</b>				
16	45-60	From now on, any time a new activity or Practice Station is added for small-group time, the teacher should follow a similar routine as the one established above. When ready to begin Phase IV, the teacher may begin to pull <b>multiple groups</b> for an extended time (10-15 min. each group) using intervention and challenge materials and activities.		

# SALTA Four Day Plan for Spelling Instruction

Day 1
<ul style="list-style-type: none"><li>• Pre-test using spelling dictation for 5-7 words with students rewriting any word they missed correctly after each word is given.</li><li>• Spelling Dictation Routine Card #7 or Word Parts Strategy Routine Card #4</li><li>• Lesson in Reading Street with focus on the spelling pattern, rule or generalization</li></ul>
Day 2
<ul style="list-style-type: none"><li>• Teacher Created Word Sort (can be done as a practice station)<ul style="list-style-type: none"><li>• Possible Sorts:<ul style="list-style-type: none"><li>• Prefix/non-prefix or Suffix/no suffix</li><li>• Words related to the Question of the Week</li><li>• Syllable types</li></ul></li></ul></li></ul>
Day 3
<ul style="list-style-type: none"><li>• Student Created Word Sort (can be done as a practice station)<ul style="list-style-type: none"><li>• Possible Sorts:<ul style="list-style-type: none"><li>• Prefix/non-prefix or Suffix/no suffix</li><li>• Words related to the Question of the Week</li><li>• Syllable types</li></ul></li></ul></li></ul>
Day 4
<ul style="list-style-type: none"><li>• Spelling Dictation: 10-20 words from teacher and student generated lists with targeted spelling pattern</li></ul>

## Best Practices for Handwriting Instruction

Handwriting (both manuscript and cursive) is an important skill for students to learn. Teaching and practicing writing allows students to write letters correctly and efficiently. Fluent writers are able to focus on generating idea, producing grammatically correct text, and considering audience. Even when a student moves to a computer or other device, that writing fluency is important to the composing process.

*-Utah State Office of Education*

Direct, systematic, explicit teaching of handwriting improves students' overall written composition for many years. Students who are automatic with correct letter formation, including reasonable legibility and fluency, can cognitively attend to the higher-level skills associated with written tasks. Attention to higher-level skills is compromised when students have to focus their cognitive energy on letter formation. Best practices support the integration of handwriting instruction within other written tasks. Research indicates that early handwriting instruction improves students' written work, not just its legibility, but its quantity and quality as well (Graham, 2010; Moats, 2008).

### **Effective and Efficient Handwriting Instruction**

**Step 1:** Provide 2-5 minutes of direct, explicit instruction during the Language Block using your Reading Street materials.

Instruction includes:

- Providing visual models around the room
- Using lined paper with labels for top/middle/bottom
- Connecting sound/spelling card, name and sound of letter (K-3)
- Using language to describe the strokes
- Writing letters in the air using whole arm and pointing with index and middle fingers to trace the letter
- Monitoring student posture and grip as necessary
- Focusing on accuracy, then fluency

**Step 2:** Embed additional practice in spelling/word study, writing, or conventions instruction

**Step 3:** Practice Stations can be used for additional, brief practice opportunities

## Handwriting Standards from the Utah Core: *Language Standard 1*

### Kindergarten

- a) With guidance and support, identify and write many upper - and lowercase letters, including those in the student's name.

### 1<sup>st</sup> Grade

- a) Independently identify and legibly write all upper-and lowercase letters (legibility is defined as the letter being recognizable to readers in isolation from other letters in a word).
- b) Produce grade-appropriate text using legible writing.

### 2<sup>nd</sup> Grade

- a) Fluently, independently, and legibly write all upper- and lowercase letters.
- b) Produce grade-appropriate text using legible writing.
- c) Understand that cursive is different from manuscript.

### 3<sup>rd</sup> Grade

- a) Independently and legibly write all upper- and lowercase cursive letters.
- b) Produce grade-appropriate text using legible cursive writing.

### 4<sup>th</sup> Grade

- a) Fluently, independently, and legibly write all upper and lower case cursive letters.
- b) Produce grade-appropriate text using legible cursive writing.

### 5<sup>th</sup> Grade

- a) Maintain legible and fluent cursive writing.

**Zaner-Bloser or D’Nealian?** It is recommended that each school will need to adopt one manuscript type Zaner-Bloser or D’Nealian. It is essential that whatever is decided is vertically aligned so that students can build their fluency in the selected type without having to learn a different style each year. There are benefits to both types of manuscript and your Reading Street materials provide guidance for each. The table below offers considerations to inform your decision.

Zaner-Bloser	D’Nealian
<ul style="list-style-type: none"><li>• Students often enter kindergarten already knowing how to form some letters</li></ul>	<ul style="list-style-type: none"><li>• Smoother and faster transition to cursive</li></ul>
<ul style="list-style-type: none"><li>• More closely matches the print students are reading</li></ul>	<ul style="list-style-type: none"><li>• Reduces “b” and “d” letter confusion</li></ul>

*Note: Difficulty in forming letters is not related to cognitive skills, but to fine motor movement. Movements using a rigid fist grip come from the muscle of the upper arm, not smaller hand movements. Strengthening the muscle of the upper arm will help handwriting development (Moats, 2008).*

# Handwriting Samples

**Manuscript Alphabet** REPRODUCIBLE

a b c d e f g  
h i j k l m n  
o p q r s t u  
v w x y z

A B C D E F G  
H I J K L M N  
O P Q R S T U  
V W X Y Z , ' . ?

1 2 3 4 5 6  
7 8 9 10

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**D'Nealian™ Alphabet** REPRODUCIBLE

a b c d e f g h i  
j k l m n o p q r s t  
u v w x y z

A B C D E F G  
H I J K L M N O  
P Q R S T U V  
W X Y Z , ' . ?

1 2 3 4 5 6  
7 8 9 10

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**D'Nealian™ Cursive** REPRODUCIBLE

a b c d e f g  
h i j k l m n  
o p q r s t u  
v w x y z

A B C D E F G  
H I J K L M N  
O P Q R S T U  
V W X Y Z , ' . ?

1 2 3 4 5 6  
7 8 9 10

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## Writing Practices

During school day, best instructional practice emphasizes writing across content areas and integrated throughout the entire school day. There are both formal and informal practices, which include Writing to Learn and Product Writing.

### The purpose of Writing to Learn:

- Develop fluency
- Practice written vocabulary and academic language
- Practice communicating ideas formally and informally
- Assess comprehension

During Writing to Learn tasks, students engage in two of the five levels of writing: 1) To get ideas down, and 2) To exhibit knowledge on a topic. (Shown as Writing on Demand within Reading Street)

### The purpose of Product Writing:

- Knowledge on a topic or text
- Well developed composition with organization
- Transitions, precise language and formal language
- Refinement of writing skills
- Conventions and grammar
- Evaluation and feedback
- Publishing

During Product Writing students engage in three of the five levels of writing: 3) Writing to be read and reviewed, revised and edited. 4) Writing to be critiqued, revised and edited. 5) Writing to be published.

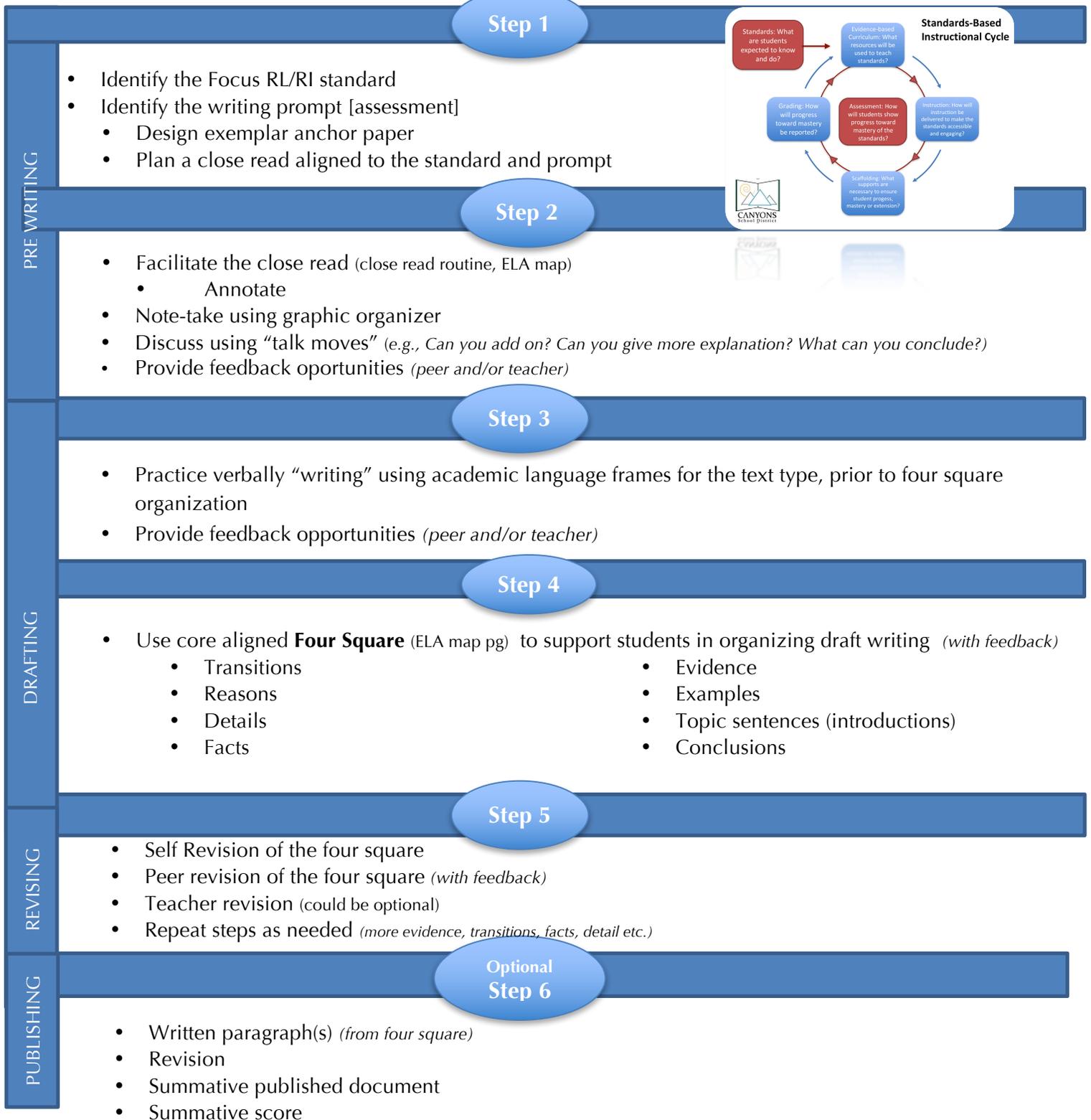
Levels	Examples
1. Writing to get ideas down	Brainstorming, listing, graphic organizer
2. Writing to exhibit knowledge on a topic	Short answers, journals, learning logs
3. Writing to be read and reviewed, revised and edited	First draft of report, essay, narrative
4. Writing to be critiqued, revised and edited	Final draft of report, essay, narrative
5. Writing to be published	Shared with a wider audience (e.g. <i>Reflections</i> )

Some of the examples in the following pages include the four square structure for both writing to learn and product writing. Included are four square templates that align to grade level core and text types. Additionally, there are examples and suggested performance tasks aligned to the Reading Street Unit and Writing to Sources Book.

# Framework for Elementary Product Writing

“As we read and discuss complex text with students, we look for the organizational structures and methods writers use for presenting information. We should always be moving students ‘from conversation to composition’. In doing so, we show students how others use evidence, how they can locate evidence and how they can use evidence in verbal and written communication.”

Fisher, D. and Frey, N. 2014. *Close Reading and Writing From Sources*.

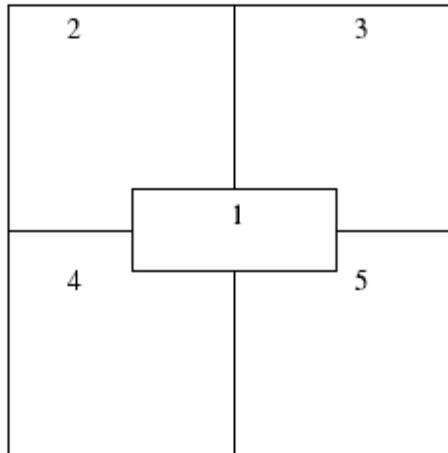


## "Four Square" Writing Overview

You can easily write properly structured paragraphs with a topic sentence and conclusion using a simple graphic organizer – "the four-square." With further practice, you will learn to write well-developed compositions of five or more paragraphs, complete with introductory and concluding paragraphs.

**Step 1: Write your topic sentence based on your writing prompt or topic.**

Divide an entire piece of notebook paper into equal quarters, leaving a large rectangle in the center (as illustrated below.) Once you have formulated your position into a topic sentence (2-3) or thesis statement (4-5), **write your Main Idea or Topic Sentence in Box 1.**



The main idea (topic sentence) is placed in the center box of the four square (box 1). Boxes 2, 3, and 4 are used for supporting ideas. The lower right box (box 5) is used to build a summary or concluding sentence. This "wrap-up" sentence encompasses all the ideas developed in the four-square, and is the basis of developing good introductory and concluding paragraphs in the essay.

**Step 2: Write three supporting ideas (reasons, details or facts)-** Once you've written your topic or prompt in Box 1, BRAINSTORM three supporting ideas (Write these in Boxes 2, 3 and 4.) Now the center box will contain a complete sentence (topic sentence based on your prompt), and boxes 2, 3, and 4 will contain supporting ideas (reasons, details or facts) that prove or support box 1. These ideas must be all different from one another, real, and not simple opinions.

**Step 3: 4 Square + 3E: Adding more Evidence-** Now these "supporting ideas" (evidence, examples, or explanations) need further development by adding supporting evidence in boxes 2, 3, and 4. Adding examples and explanations can be difficult since you may not be accustomed to citing. You will be challenged to look for evidence and cite. At this time it is important to remember that *there may not be a repetition* anywhere on the four-square.

**Step 4: 4 Square + 3E+ T: Adding Transitional words to provide transition between thoughts-** By now you are developing your thesis statement (box 1) into three reasons, details or facts and supporting evidence and examples (boxes 2, 3, and 4). Transition words are now needed to provide smooth transitions and reading between what will eventually become paragraph(s).

**Step 5: 4 Square + 3E+ T + P: Incorporating Precise language into writing-** This step helps you develop personal writing style by using carefully chosen precise words to provide sensory details and imagery for the reader. Your goal is to *show* the reader, not to just *tell* the reader. You can list several words under each supporting idea in the organizer and later decide which ones to use. Addition of precise language furthers elaboration and enhances maturity of writing. Building these descriptions prepares the writer for longer and more complex compositions.

**Step 6: Add a concluding statement-** write a concluding sentence in Box #5. The concluding ties all the parts together, reminds the reader of the topic and purpose for the paragraph and reflects the topic sentence.

**Step 7: Develop your ideas in sentences/paragraph(s) on a separate sheet of paper.** (Your sentences/paragraph(s) ideas are now taken off the organizer and put into sentences/paragraph(s) form on a separate sheet of paper, which will give you plenty of room to add to your sentences/paragraph(s).) Begin writing sentences/paragraph(s) using what you wrote in the Four Square (one sentences/paragraph(s) for each box).

Now all that is left is to take your paragraphs and develop the 5-paragraph essay; even your introduction and conclusion ideas are taken from your original four-square organizer.

Name: \_\_\_\_\_

<p>Linking Word/Phrase:</p> <p>Supporting Reason 1</p>	<p>Linking Word/Phrase:</p> <p>Supporting Reason 2</p>
<p>Introduce topic/text and state an opinion</p>	
<p>Linking Word/Phrase:</p> <p>Supporting Reason 3</p>	<p>Linking Word/Phrase:</p> <p>Conclusion</p>

**Opinion Essay  
Writing Rubric (Grades 3-5)**

Score	Statement of Purpose/Focus and Organization (4-point rubric)	Evidence/Elaboration (4-point rubric)	Conventions/Editing (2-point rubric begins at scorepoint 2)
<b>4</b>	<p>The response is fully sustained and consistently and purposefully focused:</p> <ul style="list-style-type: none"> <li>• opinion is clearly stated, focused, and strongly maintained</li> <li>• opinion is communicated clearly within the purpose, audience, and task</li> </ul> <p>The response has a clear and effective organizational structure creating unity and completeness :</p> <ul style="list-style-type: none"> <li>• effective, consistent use of a variety of transitional strategies to clarify the relationships between and among ideas</li> <li>• logical progression of ideas from beginning to end</li> <li>• effective introduction and conclusion for audience and purpose</li> </ul>	<p>The response provides thorough and convincing support/evidence for the writer’s opinion that includes the effective use of sources, facts, and details:</p> <ul style="list-style-type: none"> <li>• use of evidence from sources is smoothly integrated, comprehensive, and relevant</li> <li>• effective use of a variety of elaborative techniques</li> </ul> <p>The response clearly and effectively expresses ideas, using precise language:</p> <ul style="list-style-type: none"> <li>• use of academic and domain-specific vocabulary is clearly appropriate for the audience and purpose</li> </ul>	

<p><b>3</b></p>	<p>The response is adequately sustained and generally focused:</p> <ul style="list-style-type: none"> <li>• opinion is clear and for the most part maintained, though some loosely related material may be present</li> <li>• context provided for the claim is adequate within the purpose, audience, and task</li> </ul> <p>The response has a recognizable organizational structure, though there may be minor flaws and some ideas may be loosely connected:</p> <ul style="list-style-type: none"> <li>• adequate use of transitional strategies with some variety to clarify the relationships between and among ideas</li> <li>• adequate progression of ideas from beginning to end</li> <li>• adequate introduction and conclusion</li> </ul>	<p>The response provides adequate support/evidence for the writer’s opinion that includes the use of sources, facts, and details:</p> <ul style="list-style-type: none"> <li>• some evidence from sources is integrated, though citations may be general or imprecise</li> <li>• adequate use of some elaborative techniques</li> </ul> <p>The response adequately expresses ideas, employing a mix of precise with more general language:</p> <ul style="list-style-type: none"> <li>• use of domain-specific vocabulary is generally appropriate for the audience and purpose</li> </ul>	
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<p><b>2</b></p>	<p>The response is somewhat sustained with some extraneous material or a minor drift in focus:</p> <ul style="list-style-type: none"> <li>• may be clearly focused on the opinion but is insufficiently sustained within the purpose, audience, and task</li> <li>• Opinion on the issue may be somewhat unclear and unfocused</li> </ul> <p>The response has an inconsistent organizational structure, and flaws are evident:</p> <ul style="list-style-type: none"> <li>• inconsistent use of transitional strategies with little variety</li> <li>• uneven progression of ideas from beginning to end</li> <li>• conclusion and introduction, if present, are weak</li> </ul>	<p>The response provides uneven, cursory support/ evidence for the writer’s opinion that includes partial or uneven use of sources, facts, and details:</p> <ul style="list-style-type: none"> <li>• evidence from sources is weakly integrated, and citations, if present, are uneven</li> <li>• weak or uneven use of elaborative techniques</li> </ul> <p>The response expresses Ideas unevenly, using simplistic language:</p> <ul style="list-style-type: none"> <li>• use of domain-specific vocabulary may at times be inappropriate for the audience and purpose</li> </ul>	<p>The response demonstrates an adequate command of conventions:</p> <ul style="list-style-type: none"> <li>• some errors in usage and sentence formation may be present, but no systematic pattern of errors is displayed</li> <li>• adequate use of punctuation, capitalization, and spelling</li> </ul>
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<b>1</b>	<p>The response may be related to the purpose but may offer little or no focus:</p> <ul style="list-style-type: none"> <li>• may be very brief</li> <li>• may have a major drift</li> <li>• opinion may be confusing or ambiguous</li> </ul> <p>The response has little or no discernible organizational structure:</p> <ul style="list-style-type: none"> <li>• few or no transitional strategies are evident</li> <li>• frequent extraneous ideas may intrude</li> </ul>	<p>The response provides minimal support/evidence for the writer’s opinion that includes little or no use of sources, facts, and details:</p> <ul style="list-style-type: none"> <li>• use of evidence from sources is minimal, absent, in error, or irrelevant</li> </ul> <p>The response expression of ideas is vague, lacks clarity, or is confusing:</p> <ul style="list-style-type: none"> <li>• uses limited language or domain-specific vocabulary</li> <li>• may have little sense of audience and purpose</li> </ul>	<p>The response demonstrates a partial command of conventions:</p> <ul style="list-style-type: none"> <li>• errors in usage may obscure meaning</li> <li>• inconsistent use of punctuation, capitalization, and spelling</li> </ul>
<b>0</b>			<p>The response demonstrates a lack of command of conventions.</p>
<b>NS</b>	<p>Insufficient, illegible, foreign language, incoherent, off-topic, or off-purpose writing</p>		

Name: \_\_\_\_\_

<p>Linking Words and Phrases:</p> <p>Fact 1</p>	<p>Linking Word and Phrases:</p> <p>Fact 2</p>
<p>Introduce topic</p>	
<p>Linking Word and Phrases:</p> <p>Fact 3</p>	<p>Linking Word and Phrases:</p> <p>Conclusion</p>

Name: \_\_\_\_\_

<p>Linking Words and Phrases:</p> <p>Fact 1</p> <p><b>The first commonly used electric light source was the arc lamp. Bright sparks jumped between two rods to produce light.</b></p> <p>Possible Word Bank: arc lamp incandescent carbon tungsten filament</p>	<p>Linking Word and Phrases:</p> <p><b>Before long,</b></p> <p>Fact 2</p> <p><b>Thomas Edison invented the incandescent lamp that used a carbon filament inside the glass bulb. This invention took place around 1878.</b></p>
<p>Introduce topic</p> <p>Light bulbs are mechanical devices that produce light.</p>	
<p>Linking Word and Phrases:</p> <p><b>Today,</b></p> <p>Fact 3</p> <p><b>The filament in modern light bulbs is made of tungsten. Tungsten is brighter than carbon and lasts longer at high temperatures. Today's light bulbs also use special gases that help the filament last longer.</b></p>	<p>Linking Word and Phrases:</p> <p><b>In conclusion,</b></p> <p>Conclusion</p> <p><b>Light bulbs use special metals and gases to efficiently produce light.</b></p>

**Informative-Explanatory Short Essay  
Writing Rubric (Grades 3-5)**

<b>Score</b>	<b>Statement of Purpose/Focus and Organization (4-point rubric)</b>	<b>Evidence/Elaboration (4-point rubric)</b>	<b>Conventions/Editing (2-point rubric begins at scorepoint 2)</b>
<b>4</b>	<p>The response is fully sustained and consistently and purposefully focused:</p> <ul style="list-style-type: none"> <li>• controlling idea or main idea of a topic is focused, clearly stated, and strongly maintained</li> <li>• controlling idea or main idea of a topic is introduced and communicated clearly within the purpose, audience, and task</li> </ul> <p>The response has a clear and effective organizational structure creating unity and completeness:</p> <ul style="list-style-type: none"> <li>• use of a variety of transitional strategies to clarify the relationships between and among ideas</li> <li>• logical progression of ideas from beginning to end</li> <li>• effective introduction and conclusion for audience and purpose</li> </ul>	<p>The response provides thorough and convincing support/evidence for the controlling idea or main idea that includes the effective use of sources, facts, and details:</p> <ul style="list-style-type: none"> <li>• use of evidence from sources is smoothly integrated, comprehensive, and relevant</li> <li>• effective use of a variety of elaborative techniques</li> </ul> <p>The response clearly and effectively expresses ideas, using precise language:</p> <ul style="list-style-type: none"> <li>• use of academic and domain-specific vocabulary is clearly appropriate for the audience and purpose</li> </ul>	

<p><b>3</b></p>	<p>The response is adequately sustained and generally focused:</p> <ul style="list-style-type: none"> <li>• focus is clear and for the most part maintained, though some loosely related material may be present</li> <li>• some context for the controlling idea or main idea of the topic is adequate within the purpose, audience, and task</li> </ul> <p>The response has an evident organizational structure and a sense of completeness, though there may be minor flaws and some ideas may be loosely connected:</p> <ul style="list-style-type: none"> <li>• adequate use of transitional strategies with some variety to clarify the relationships between and among ideas</li> <li>• adequate progression of ideas from beginning to end</li> <li>• adequate introduction and conclusion</li> </ul>	<p>The response provides adequate support/evidence for controlling idea or main idea that includes the use of sources, facts, and details:</p> <ul style="list-style-type: none"> <li>• some evidence from sources is integrated, though citations may be general or imprecise</li> <li>• adequate use of some elaborative techniques</li> </ul> <p>The response adequately expresses ideas, employing a mix of precise with more general language</p> <ul style="list-style-type: none"> <li>• use of domain-specific vocabulary is generally appropriate for the audience and purpose</li> </ul>	
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<p><b>2</b></p>	<p>The response is somewhat sustained and may have a minor drift in focus:</p> <ul style="list-style-type: none"> <li>• may be clearly focused on the controlling or main idea, but is insufficiently sustained</li> <li>• controlling idea or main idea may be unclear and somewhat unfocused</li> </ul> <p>The response has an inconsistent organizational structure, and flaws are evident:</p> <ul style="list-style-type: none"> <li>• inconsistent use of transitional strategies with little variety</li> <li>• uneven progression of ideas from beginning to end</li> <li>• conclusion and introduction, if present, are weak</li> </ul>	<p>The response provides uneven, cursory support/evidence for the controlling idea or main idea that includes partial or uneven use of sources, facts, and details:</p> <ul style="list-style-type: none"> <li>• evidence from sources is weakly integrated, and citations, if present, are uneven</li> <li>• weak or uneven use of elaborative techniques</li> </ul> <p>The response expresses ideas unevenly, using simplistic language:</p> <ul style="list-style-type: none"> <li>• use of domain-specific vocabulary that may at times be inappropriate for the audience and purpose</li> </ul>	<p>The response demonstrates an adequate command of conventions:</p> <ul style="list-style-type: none"> <li>• some errors in usage and sentence formation are present, but no systematic pattern of errors is displayed</li> <li>• adequate use of punctuation, capitalization, and spelling</li> </ul>
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<b>1</b>	<p>The response may be related to the topic but may provide little or no focus:</p> <ul style="list-style-type: none"> <li>• may be very brief</li> <li>• may have a major drift</li> <li>• focus may be confusing or ambiguous</li> </ul> <p>The response has little or no discernible organizational structure:</p> <ul style="list-style-type: none"> <li>• few or no transitional strategies are evident</li> <li>• frequent extraneous ideas may intrude</li> </ul>	<p>The response provides minimal support/evidence for the controlling idea or main idea that includes little or no use of sources, facts, and details:</p> <ul style="list-style-type: none"> <li>• use of evidence from the source material is minimal, absent, in error, or irrelevant</li> </ul> <p>The response expression of ideas is vague, lacks clarity, or is confusing:</p> <ul style="list-style-type: none"> <li>• uses limited language or domain-specific vocabulary</li> <li>• may have little sense of audience and purpose</li> </ul>	<p>The response demonstrates partial command of conventions:</p> <ul style="list-style-type: none"> <li>• errors in usage may obscure meaning</li> <li>• inconsistent use of punctuation, capitalization, and spelling</li> </ul>
<b>0</b>			<p>The response demonstrates a lack of command of conventions.</p>
<b>NS</b>	<p>Insufficient, illegible, foreign language, incoherent, off-topic, or off-purpose writing</p>		

Name: \_\_\_\_\_

<p>Temporal Word/Phrase:</p> <p>Actions, Thoughts &amp; Feelings:</p>	<p>Temporal Word/Phrase:</p> <p>Actions, Thoughts &amp; Feelings:</p>
<p>Opening Event</p>	
<p>Temporal Word/Phrase:</p> <p>Actions, Thoughts &amp; Feelings:</p>	<p>Temporal Word/Phrase:</p> <p>Conclusion</p>

### 3<sup>rd</sup> Grade Narrative Writing Rubric

Score	Narrative Focus	Organization	Development of Narrative	Language and Vocabulary	Conventions
<b>4</b>	Narrative is clearly focused and developed throughout.	Narrative has a well-developed, logical, easy-to-follow plot.	Narrative includes thorough and effective use of details, dialogue, and description	Narrative uses precise, concrete sensory language as well as figurative language and/or domain-specific vocabulary.	Narrative has correct grammar, usage, spelling, capitalization, and punctuation.
<b>3</b>	Narrative is mostly focused and developed throughout.	Narrative has a plot, but here may be some lack of clarity and/or unrelated events.	Narrative includes adequate use of details, dialogue and description.	Narrative uses adequate sensory and figurative language and/or domain-specific vocabulary.	Narrative has a few errors but is completely understandable.
<b>2</b>	Narrative is somewhat developed but may occasionally lose focus.	Narrative's plot is difficult to follow, and ideas are not connected well.	Narrative includes only a few details, dialogues, and description.	Language in narrative is not precise or sensory; lacks domain-specific vocabulary.	Narrative has some errors in usage, grammar, spelling and/or punctuation.
<b>1</b>	Narrative may be confusing, unfocused, or too short.	Narrative has little or no apparent plot.	Narrative includes few or no details, dialogue or description	Language in narrative is vague, unclear, or confusing.	Narrative is hard to follow because of frequent errors.
<b>0</b>	Narrative gets no credit if it does not demonstrate adequate command of narrative writing traits.				

**Utah Core Standards**

**Writing 3.** Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

### 3<sup>rd</sup> Grade Writing Performance Task

#### UNIT One: Narrative

**Standard: W.3.3** Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. Establish a situation and introduce narrator and/or character; organize an event sequence that unfolds naturally. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. Use temporal words and phrases to signal event order. Provide a sense of closure.

**Prompt:** Imagine you are one of the characters from *What About Me?*, *Kumak's Fish*, or *My Rows and Piles of Coins*. Write a personal narrative about a goal you have accomplished. How is the goal you accomplished similar and different to the ways the characters in the three stories you have read accomplished their goals?

**Materials:** Using graphic organizer (GO) #18, Writing to Sources Book pg. 30-31, Speaking and Listening Rubric, Academic Language Scripts, Grade Level Four Square GO for narrative, and Utah Compose

#### **Part I: Re-read and Take Notes** (30 minutes)

- Follow the directions on **page 30** of your *Writing to Sources* book.
- Using graphic organizer (**GO**) #18 *Compare and Contrast* from the Pearson Reading Street Teacher's Online Resources under Digital Transparencies and have students take notes during re-reading.

#### **Part II: Write and Collaborate** (20-30 minutes)

- Write using the **blackline on page 31** of your *Writing to Sources* book, using the **GO #18**.
- Collaborate with a partner or small group and discuss short responses from **page 31**. Use the **Academic Language Scripts in your map *Build on What Others Say***
  - I agree with what \_\_\_\_\_ said because....
  - You bring up an interesting point and I also think....
  - That's an interesting idea. I wonder...? I think...Do you think....?
  - I thought about that also and I'm wondering why...?
  - I hadn't thought of that before. You make me wonder if.... Do you think...?
  - \_\_\_\_\_ said that.... I agree and also think...
  - Based on the ideas from \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_, it seems like we all think that...
- While students are collaborating, use the **Speaking and Listening rubric** to assess.
- Have students add-on and adjust their thinking by adding to their short response questions.

#### **Part III: Writing Prompt** (30 minutes)

- Using the **Narrative Four-Square template** organize your thinking based on the prompt.
- Using **Utah Compose**, have students respond to the prompt. Encourage students to refer to the **Four-Square template** and their notes from the collaboration.

**3<sup>rd</sup> Grade Writing Performance Task**  
**UNIT Two: Argument**

**Standard: W.3.1** Write opinion pieces on topics or texts supporting a point of view with reasons. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. Provide reasons that support the opinion. Use linking words and phrases (e.g., because, therefore, since for example) to connect opinion and reasons. Provide a concluding statement or section.

**Prompt:** *Reread I Wanna Iguana, Prudy's Problem and How She Solved It, and Tops & Bottoms. Write a review of the selection you think is the best story of the three. State your opinion and support it with reasons. Use examples from all three texts to defend your choice.*

**Materials:** GO #27, Writing to Sources Book pgs. 62-63, Speaking and Listening Rubric, Academic Language Scripts, Four Square GO for opinion, and Utah Compose

**Part I: Re-read and Take Notes** (30 minutes)

- Follow the directions on **page 62** of your **Writing to Sources** book.
- Using graphic organizer (**GO**) #27 **Four-Column Chart**, from the Teacher's online Resources under digital transparencies and have students take notes during re-reading to enable defending their choice.

**Part II: Write and Collaborate** (20-30 minutes)

- Write using the **blackline on page 63** of your *Writing to Sources* book, using the graphic organizer #27.
- Collaborate with a partner or small group and discuss short responses from **page 63**. Use the **Academic Language Scripts *Build on What Others Say***
  - I agree with what \_\_\_\_\_ said because....
  - You bring up an interesting point and I also think....
  - That's an interesting idea. I wonder...? I think...Do you think....?
  - I thought about that also and I'm wondering why...?
  - I hadn't thought of that before. You make me wonder if.... Do you think....?
  - \_\_\_\_\_ said that.... I agree and also think...
  - Based on the ideas from \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_, it seems like we all think that...
- While students are collaborating, use the **Speaking and Listening rubric** to assess.
- Have students add-on and adjust their thinking by adding on to their short response questions.

**Part III: Writing Prompt** (30 minutes)

- Using the **Opinion Four-Square template** organize your thinking based on the prompt.
- Using **Utah Compose**, have students respond to the prompt. Encourage students to refer to the **Four-Square template** and their notes from the collaboration.

### 3<sup>rd</sup> Grade Writing Performance Task

#### UNIT Three: Informative/Explanatory

**Standard: W.3.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. Develop the topic with facts, definitions, and details. Provide a concluding statement or section.

**Prompt:** Review what you learned in *How do you Raise a Raisin?*, *Pushing Up the Sky*, and *A Symphony of Whales*. Write a how-to report that tells how to start a group project. Explain how to get people involved in the project. Use examples from the selections to support your ideas. Be sure to follow the conventions of written English.

**Materials:** GO #26, Writing to Sources Book pgs. 98-99, Speaking and Listening Rubric, Academic Language Scripts, Four Square GO for opinion, and Utah Compose, *Speaking and Listening Standards 1 & 4*.

#### **Part I: Re-read and Take Notes** (30 minutes)

- Follow the directions on **page 98** of your **Writing to Sources** book.
- Using graphic organizer **(GO)#26 Three-Column Chart** from the Teacher's online Resources under digital transparencies and have students take notes during re-reading to enable students to cite examples from the text.

#### **Part II: Write and Collaborate** (20-30 minutes)

- Using the **GO #26**, support students in discussions that follow the **Speaking and Listening standards 1 and 4**.
- Collaborate with a partner or small group and discuss how to steps of a group project. Include steps that plan for the project, assignments, timelines, revisions and final presentations. Use the **Academic Language Scripts *Build on What Others Say and Inviting Others into the Dialogue***.
  - I agree with what \_\_\_\_\_ said because....
  - You bring up an interesting point and I also think....
  - That's an interesting idea. I wonder...? I think...Do you think....?
  - I thought about that also and I'm wondering why...?
  - I hadn't thought of that before. You make me wonder if.... Do you think...?
  - \_\_\_\_\_ said that.... I agree and also think...
  - Based on the ideas from \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_, it seems like we
  - all think that...
  - Does anyone agree/dis agree?
  - What different conclusions do you have?
  - \_\_\_\_\_ (name), what do you think?
  - I wonder what \_\_\_\_\_ thinks?
  - We haven't heard from many people in the group. Could someone new offer an idea or question?
- While students are collaborating, use the **Speaking and Listening rubric** to assess.
- Have students add-on and adjust their thinking by adding on to their short response questions.

#### **Part III: Writing Prompt** (30 minutes)

- Using the **Informative/Explanatory Four-Square template** organize your thinking based on the prompt.
- Using **Utah Compose**, have students respond to the prompt. Encourage students to refer to the **Four-Square template** and their notes from the collaboration.

**3<sup>rd</sup> Grade Writing Performance Task**  
**UNIT Four: Narrative**

**Standard: W.3.3** Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. Establish a situation and introduce narrator and/or character; organize an event sequence that unfolds naturally. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. Use temporal words and phrases to signal event order. Provide a sense of closure.

**Prompt:** *Use what you have learned from reading The Man Who Invented Basketball, Rocks in His Head, and America's Champion Swimmer: Gertrude Ederle to write a realistic narrative about a person who overcomes difficulties and works hard to become successful. Use examples from the three texts to describe and justify what it takes to be successful. Be sure to follow the conventions of written English.*

**Materials:** GO #26, Writing to Sources Book pg. 126-127, Speaking and Listening Rubric, Academic Language Scripts, Grade Level Four Square GO for narrative, and Utah Compose

**Part I: Re-read and Take Notes** (30 minutes)

- Follow the directions on **page 126** of your **Writing to Sources** book.
- Using graphic organizer (**GO**) #26 **Three Column Chart** from the Teacher's online Resources under digital transparencies and have students take notes during re-reading to enable students to cite details from the text.

**Part II: Write and Collaborate** (20-30 minutes)

- Write using the **blackline on page 127** of your *Writing to Sources* book, using the **GO #26**.
- Collaborate with a partner or small group and discuss short responses from **page 127**. Use the **Academic Language Scripts in your map *Build on What Others Say***
  - I agree with what \_\_\_\_\_ said because....
  - You bring up an interesting point and I also think....
  - That's an interesting idea. I wonder...? I think...Do you think....?
  - I thought about that also and I'm wondering why...?
  - I hadn't thought of that before. You make me wonder if.... Do you think...?
  - \_\_\_\_\_ said that.... I agree and also think...
  - Based on the ideas from \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_, it seems like we all think that...
- While students are collaborating, use the **Speaking and Listening rubric** to assess.
- Have students add-on and adjust their thinking by adding to their short response questions.

**Part III: Writing Prompt** (30 minutes)

- Using the **Narrative Four-Square template** organize your thinking based on the prompt.
- Using **Utah Compose**, have students respond to the prompt. Encourage students to refer to the **Four-Square template** and their notes from the collaboration.

**3<sup>rd</sup> Grade Writing Performance Task**  
**UNIT Five: Argument**

**Standard: W.3.1** Write opinion pieces on topics or texts supporting a point of view with reasons. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. Provide reasons that support the opinion. Use linking words and phrases (e.g., because, therefore, since for example) to connect opinion and reasons. Provide a concluding statement or section.

**Prompt:** Use what you learned by reading *Suki's Kimono*, *I Love Saturdays y domingos*, and *Jalapeño Bagels* to write an argumentative essay about why it's important to learn about different cultures. Develop your argument using text evidence from all three texts to justify your response. Be sure to follow the conventions of written English.

**Materials:** GO #26, Writing to Sources Book pgs. 162-163, Speaking and Listening Rubric, Academic Language Scripts, Four Square GO for opinion, and Utah Compose

**Part I: Re-read and Take Notes** (30 minutes)

- Follow the directions on **page 158** of your *Writing to Sources* book.
- Using graphic organizer **(GO) #26 Three Column Chart**, from the Teacher's online Resources under digital transparencies and have students take notes during re-reading to enable defending their choice.

**Part II: Write and Collaborate** (20-30 minutes)

- Write using the **blackline on page 159** of your *Writing to Sources* book, using the graphic organizer #26.
- Collaborate with a partner or small group and discuss short responses from **page 159**. Use the **Academic Language Scripts *Build on What Others Say***
  - I agree with what \_\_\_\_\_ said because....
  - You bring up an interesting point and I also think....
  - That's an interesting idea. I wonder...? I think...Do you think....?
  - I thought about that also and I'm wondering why...?
  - I hadn't thought of that before. You make me wonder if.... Do you think...?
  - \_\_\_\_\_ said that.... I agree and also think...
  - Based on the ideas from \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_, it seems like we
  - all think that...
- While students are collaborating, use the **Speaking and Listening rubric** to assess.
- Have students add-on and adjust their thinking by adding on to their short response questions.

**Part III: Writing Prompt** (30 minutes)

- Using the **Opinion Four-Square template** organize your thinking based on the prompt.
- Using **Utah Compose**, have students respond to the prompt. Encourage students to refer to the **Four-Square template** and their notes from the collaboration.

### 3<sup>rd</sup> Grade Writing Performance Task

#### UNIT Six: Informative/Explanatory

**Standard: W.3.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. Develop the topic with facts, definitions, and details. Provide a concluding statement or section.

**Prompt:** *Use what you have learned from reading The Story of the Statue of Liberty, Happy Birthday Mr. Kang, and Talking Walls: Art for the People to write a compare and contrast essay about how works of art inspire you and others. Use facts, details, and personal examples to tell how the works of art are alike and different. Use details from the selections to help illustrate how art inspires people. Be sure to follow the conventions of written English*

**Materials:** GO #26, Writing to Sources Book pgs. 190-191, Speaking and Listening Rubric, Academic Language Scripts, Four Square GO for opinion, and Utah Compose, *Speaking and Listening Standards 1 & 4*.

#### **Part I: Re-read and Take Notes** (30 minutes)

- Follow the directions on **page 190** of your **Writing to Sources** book.
- Using graphic organizer **(GO)#26 Three-Column Chart** from the Teacher's online Resources under digital transparencies and have students use the headings facts, details, personal examples to take notes during re-reading to enable students to cite examples from the text and give personal examples.

#### **Part II: Write and Collaborate** (20-30 minutes)

- Using the **GO #26**, support students in discussions that follow the **Speaking and Listening standards 1 and 4**.
- Collaborate with a partner or small group and discuss how to steps of a group project. Include steps that plan for the project, assignments, timelines, revisions and final presentations. Use the **Academic Language Scripts *Build on What Others Say and Inviting Others into the Dialogue***.
  - I agree with what \_\_\_\_\_ said because....
  - You bring up an interesting point and I also think....
  - That's an interesting idea. I wonder...? I think...Do you think....?
  - I thought about that also and I'm wondering why...?
  - I hadn't thought of that before. You make me wonder if.... Do you think...?
  - \_\_\_\_\_ said that.... I agree and also think...
  - Based on the ideas from \_\_\_\_, \_\_\_\_, and \_\_\_\_, it seems like we all think that...
  - Does anyone agree/dis agree?
  - What different conclusions do you have?
  - \_\_\_\_\_ (name), what do you think?
  - I wonder what \_\_\_\_\_ thinks?
  - We haven't heard from many people in the group. Could someone new offer an idea or question?
- While students are collaborating, use the **Speaking and Listening rubric** to assess.
- Have students add-on and adjust their thinking by adding on to their short response questions.

#### **Part III: Writing Prompt** (30 minutes)

- Using the **Informative/Explanatory Four-Square template** organize your thinking based on the prompt.
- Using **Utah Compose**, have students respond to the prompt. Encourage students to refer to the **Four-Square template** and their notes from the collaboration.



# Elementary Mathematics 2016-2017

**3rd**

Grade



**CANYONS**  
School District

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**ENVISION MATH CURRICULUM MAP**  
**CANYONS SCHOOL DISTRICT**  
**2016-2017**

**Curriculum Mapping Purpose**

Canyons School District's curriculum math maps are standards-based maps driven by the Utah Core State Standards for Mathematics and implemented using Pearson enVisionMATH 2.0. Student achievement is increased when both teachers and students know where they are going, why they are going there, and what is required of them to get there. The additional instructional days were intentionally built into the map to allow teachers to go into more depth on concepts and allow flexible pacing based on student need. Supporting resources for these additional days can be found in the General Information section.

**Curriculum Maps are a tool for:**

- **ALIGNMENT:** Provides support and coordination between concepts, skills, standards, curriculum, and assessments
- **COMMUNICATION:** Articulates expectations and learning goals for students
- **PLANNING:** Focuses instruction and targets critical information
- **COLLABORATION:** Promotes professionalism and fosters dialogue between colleagues about best practices in both instruction and assessment.
- **SCAFFOLDED INSTRUCTION AND GROUPING STRUCTURES:** The organization of a scaffolded classroom includes whole group, small group (e.g., teacher-led skill-based, cooperative learning), partner, and independent work where students are provided support towards mastery. As students assume more responsibility for the learning, gradual support is decreased in order to shift the responsibility for learning from the teacher to the students.

Canyons School District elementary math maps are created and published by the CSD Instructional Supports Department

## General Information

### Pacing

This curriculum map provides guidance for intertwining the Utah Core Math Standards and the enVision 2.0 curriculum. Following the map will allow students to access all core standards by the end of the year. To support students' mastery of the standards, targeted standard clusters have been identified. Attending to these targeted standards will allow teachers to focus instruction for the given topic and better assess students' understanding of each standard.

### Intentional Planning

For each domain, the map specifies both procedural checks and application tasks. These tasks represent what students should know and be able to do after instruction. Understanding these tasks will assist with designing instruction around targeted standards and critical areas.

- **Procedural Check:** The purpose of the procedural check is to identify if students have the basic procedural understanding of the mathematical concept being highlighted.
- **Application Task:** The purpose of the application task is to assess student ability to understand and apply the skill with a heightened level of depth and complexity.

### Critical Areas for Conceptual Understanding

In addition to targeted standards, critical areas have been identified and are highlighted in blue within the scope and sequence of the map. Students are expected to demonstrate a conceptual understanding of these critical areas in order to be prepared for future grades. Additional instructional days have been scheduled into the scope and sequence to provide additional time for increasing conceptual understanding of the standards. Conceptual understanding requires a focus of depth and complexity which may go beyond the enVision lessons. The following resources may be useful for extending instruction to address depth of knowledge demands of the standards.

#### **Online:**

Illustrative Mathematics: Mathematical tasks aligned to the standards <https://www.illustrativemathematics.org>

Inside Mathematics: More mathematical tasks aligned to the standards

<http://www.insidemathematics.org/index.php/tools-for-teachers>

Illuminations: Lessons, interactives, and web links to support math instruction. <http://illuminations.nctm.org>

## **Print Resources:**

Elementary and Middle School Mathematics: Teaching Developmentally by John A. Van De Walle

### **Assessment**

Throughout the enVision 2.0 curriculum there are many opportunities to check for understanding with items such as the Quick Check, Do You Understand? Show Me, and Guided Practice. In addition, each topic ends with a Topic Assessment that can be given digitally or paper/pencil as well as a Performance Assessment.

### **Focused Review**

It is critical to provide an ongoing review of previously taught concepts and skills. Teacher-directed, interactive reviews daily are ideal to assess student learning and inform instruction. Daily Common Core Review is provide daily within the enVisionMATH 2.0 program and may be used to provide a cumulative review. The math block allocates 5-10 minutes for a daily, focused review.

### **Homework**

The struggle to develop new concepts should occur while the teacher is available to support and scaffold the learning and correct students' errors in thinking. Work that is sent home for students to complete should consist of concepts that have already been taught in class, been practiced, and the student can already do independently. Math homework should be used to build automaticity of skills already acquired and not for development of new skills without instruction. Practicing concepts incorrectly at home can reinforce errors in thinking and cause frustration for students and families. Practicing the skill to automaticity with homework assignments is appropriate after students have acquired the skill. *Reflex Math* is available for students in grades 2-5 and can be accessed at home as well as at school. *Reflex Math helps* students develop fluency with their basic facts in addition, subtraction multiplication and division and could be assigned as homework to support students' automaticity.

Canyons School District elementary math maps are created and published by the CSD Instructional Supports Department

## **Online Supports for Unpacking the Core**

For additional information about teaching math standards, please visit the following websites:

*USOE Curriculum Guides* <http://csdmathematics.weebly.com/usoe-elementary-curriculum-guides.html>

*North Carolina* <http://www.ncpublicschools.org/acre/standards/common-core-tools/#unpacking>

*Howard County Public Schools* <https://grade4commoncoremath.wikispaces.hcpss.org> (Change grade number to match yours—  
grade\_commoncoremath.wikispaces.hcpss.org)

*Delaware—Under assessment examples* [http://www.doe.k12.de.us/aab/Mathematics/assessment\\_tools.shtml](http://www.doe.k12.de.us/aab/Mathematics/assessment_tools.shtml)

*EngageNY—Mathematics Modules--*<http://www.engageny.org/mathematics>

Canyons School District elementary math maps are created and published by the CSD Instructional Supports Department

# Utah SAGE Elementary Mathematics Blueprints

## Grade 3

### 45 Operational Items

Domain	Min.	Max.
Operations and Algebraic Thinking (OA)	29%	38%
Number and Operations in Base Ten (NBT)	18%	22%
Number and Operations-Fractions (NF)	27%	31%
Measurement and Data and Geometry (MD/G)	18%	22%
DOK 1	18%	31%
DOK 2	38%	58%
DOK 3	9%	20%

## Grade 5

### 50 Operational Items

Domain	Min.	Max.
Operations and Algebraic Thinking (OA)	16%	20%
Number and Operations in Base Ten (NBT)	30%	36%
Number and Operations-Fractions (NF)	28%	34%
Measurement and Data and Geometry (MD/G)	18%	22%
DOK 1	16%	28%
DOK 2	50%	64%
DOK 3	10%	24%

## Grade 4

### 50 Operational Items

Domain	Min.	Max.
Operations and Algebraic Thinking (OA)	18%	22%
Number and Operations in Base Ten (NBT)	28%	32%
Number and Operations-Fractions (NF)	28%	32%
Measurement and Data and Geometry (MD/G)	16%	22%
DOK 1	22%	44%
DOK 2	44%	58%
DOK 3	12%	22%

## Grade 6

### 50 Operational Items

Domain	Min.	Max.
Ratios and Proportional Relationships (RP)	28%	32%
The Number System (NS)	18%	22%
Expressions and Equations (EE)	28%	34%
Geometry/Statistics and Probability (G/SP)	16%	20%
DOK 1	18%	32%
DOK 2	46%	62%
DOK 3	8%	20%

**Note:** The percentages shown represent target aggregate values; individual student experiences will vary based on the adaptive algorithm.

**Disclosure:** Depth of Knowledge (DOK) and Elements of Rigor are essential components of the Utah Mathematics Core Standards. As such, DOK and Elements of Rigor are integrated into the Student Assessment of Growth and Excellence (SAGE) assessment items. All students will see a variety of DOK and Elements of Rigor on the SAGE summative assessment. For more information about DOK and Elements of Rigor please see:

©Canyons School District 2016 <http://www.schools.utah.gov/assessment/Criterion-Referenced-Tests/Math.aspx>

# SALTA Materials Math

## **CORE**

All SALTA students are taught the Utah **Core** standards. Core standards are evidence-based, aligned with expectations for success in college and the workplace, and will allow students to compete internationally. The new standards stress rigor, depth, clarity, coherence, and 21<sup>st</sup> century skills, to prepare students for college and careers.

## **EXTEND**

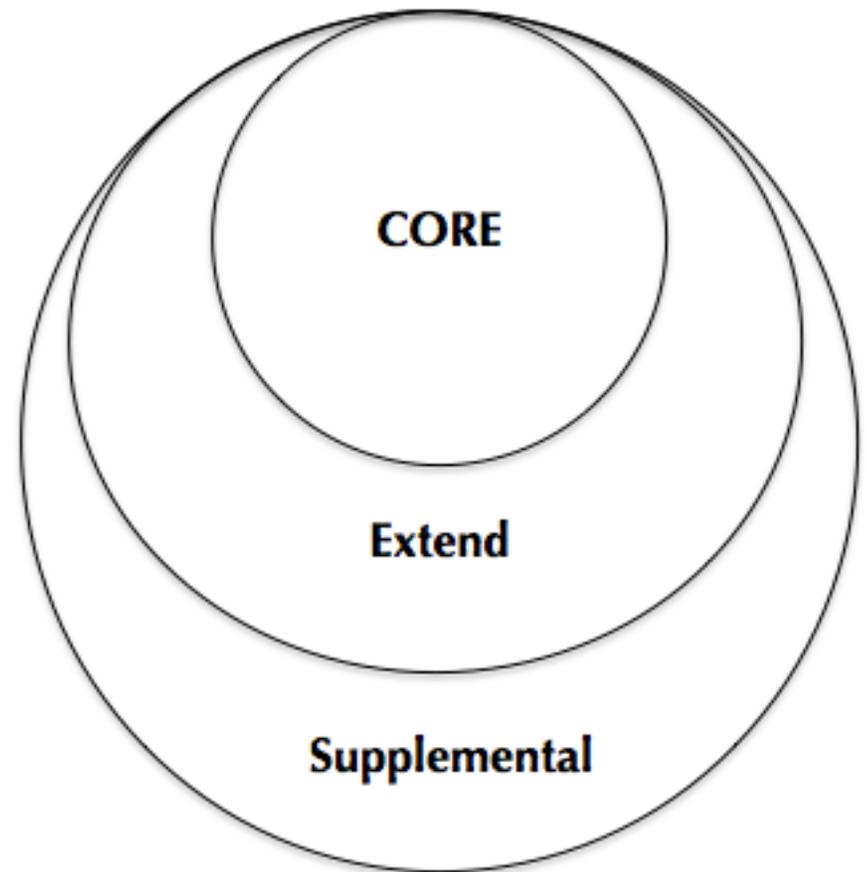
Extension of core standards provides students with activities that are added to **CORE** to enlarge or deepen understanding. Examples of **EXTEND** include:

- Math Exemplars
- Extending the Challenge (A & B), Sheffield (ExCh)
- Extended Learning Opportunities (ExLO)
- Project-Based Learning (PBL)

## **SUPPLEMENTAL**

Supplemental resources are materials and activities in addition to ones found in **EXTEND** and **CORE**. Examples of **SUPPLEMENTAL** include:

- Math  $M^2$  &  $M^3$
- Mathematics Unit for High-Ability Learners



# Math Exemplars

## About This Material

*Problem Solving for the Common Core* is not a “test prep” program, but rather a supplement to existing curricula. It is based on research that shows that students who engage in challenging and interesting work will perform at higher levels than those who do not.<sup>1</sup> (31)

The performance tasks in this program were written according to Universal Design guidelines and developed to support teachers in implementing the Common Core State Standards for Mathematical Content and Standards for Mathematical Practice. This resource is intended to help teachers embed mathematical problem solving into classroom instruction and assessment. Both instructional tasks/formative assessments and summative assessment tasks are provided for every applicable Common Core content standard. Alignments to the Standards for Mathematical Practice are also included.

By publishing authentic problem-solving tasks, Exemplars material engages students and promotes mathematical reasoning, making mathematical connections and communication skills. Our Preliminary Planning Sheets are designed to support teachers as they reflect on the tasks they intend to use. Rubrics and student anchor papers (hallmarks of Exemplars) assist teachers in assessing student performance. Students can also use these to become thoughtful self- and peer-assessors.

1. Bryk, Anthony S., Jenny K. Nagoaka, and Fred M. Newmann, *Authentic Intellectual Work and Standardized Tests: Conflict of Coexistence?* (Chicago: Consortium on Chicago School Research, 2001).<sup>1</sup>

## The Different Task Types

The tasks found in *Problem Solving for the Common Core* have been classified as either an instructional task/formative assessment or a summative assessment.

- **Instructional Tasks/Formative Assessments**

Throughout this program, there are four (or more) instructional/formative assessment problem-solving tasks for every applicable Common Core content standard. These are viewed as opportunities for students to learn new mathematical strategies, vocabulary and notation and representations. Students can also explore mathematical connections and self-assess their solutions. These tasks may be done alone, in pairs, groups or as a whole class. Direct instruction may also be used to question and support classroom discussion around the underlying mathematical concepts in a task.

Teachers should use these problem-solving tasks to observe and support student understanding. As part of this process, conferencing and editing can occur and students can revisit their work as often as necessary. Teachers can use similar tasks throughout a unit of study to give a student multiple opportunities to use new learning in her or his solution and to gain independence in arriving at a correct answer.

- **Summative Assessment Tasks**

Throughout this program, there are summative assessment tasks for every applicable Common Core content standard. These problem-solving tasks are given at the end of a unit of study to assess students' understanding. A set of anchor papers and scoring rationales are provided with these tasks.

In order to achieve a true assessment of what the student understands and is able to do, in words of the Common Core, there should be a wait time of at least one day between the last instructional task/formative assessment and the summative assessment. A similar assessment task may also be given to students much later in the year if a teacher wants to spiral back to determine how much learning is retained.

Summative assessment tasks can be read to the students, and any non-mathematical terms may be defined. Tasks can be reread during the student's work time, and scribing may be provided for any non-writing or primary students. No coaching or directions can be given for how a task should be completed. A summative assessment **must** represent a student's totally independent solution.

### Note: Embedded Standards

There are instances throughout this program where the underlying math concept in a Common Core content standard is "embedded" within a task, but the standard is not directly aligned to the task. A student *may* use the underlying math concept in an embedded standard to solve the problem but cannot be *required* to use that math concept, due to the open-ended nature of problem solving. These tasks should not be given as an assessment but rather used with students to practice a particular math concept or skill.

### Content Standard Classification

In *Problem Solving for the Common Core*, each Common Core content standard has been classified in one of three ways: Aligned, Embedded or Not Applicable. Descriptions for each are found below.

- **Aligned**

This classification refers to problem-solving tasks (instructional/formative and summative) that are directly "aligned" to a specific content standard. These tasks can be used for practice and/or assessment. Summative assessment tasks include anchor papers and scoring rationales.

- **Embedded**

This classification refers to instances where the underlying math concept in the content standard is "embedded" within a task, but the standard is not directly aligned to that task. A student *may* use the underlying math concept in the standard to solve the problem but cannot be *required* to use that math concept, due to the open-ended nature of problem solving. These tasks should not be given as an assessment but rather used with students to practice a particular math concept or skill.

- **Not Applicable**

Content standards that have been classified as "not applicable" cannot be assessed through problem solving. For this reason, tasks have not been included for these particular standards. For example, the Kindergarten Counting and Cardinality Standard, K.CC.B.4a states, "When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object." This standard specifically describes a principle of counting (one-to-one correspondence) that does not elicit DOK3 tasks.

# Math Exemplars

## Student Portfolios

Throughout the school year, Exemplars encourages teachers to keep two student portfolios. The first could be either a pocket folder or binder that contains a student's instructional tasks/formative assessments. These "working portfolios" should be placed in the classroom where students can access them on a regular basis. The second should be a file that the teacher keeps to store each summative assessment problem-solving task that a student completes.

The working portfolio allows teachers to assess what the student knows using four guiding lenses.

- What do I know this student knows?
- What does this student need to practice?
- What does this student need to relearn?
- What is this student ready to learn (do next)?

Instructional tasks/formative assessments are viewed as opportunities for students to learn new mathematical strategies, vocabulary and notation and representations. Students can also explore mathematical connections and self-assess their solutions. These tasks may be done alone, in pairs, in groups or as a whole class. Direct instruction may also be used to question and support classroom discussion around the underlying mathematical concepts in a problem.

Teachers should use formative assessment tasks to observe and support student understanding. As part of this process, conferencing and editing can occur and students can revisit their work as often as necessary. Teachers can use similar tasks throughout a unit of study to give a student multiple opportunities to use new learning in her/his solution and to gain independence in arriving at a correct answer.

In contrast, summative assessment tasks are given at the end of a unit of study. Summative assessment tasks are identified throughout *Problem Solving for the Common*. These tasks include a set of anchor papers and scoring rationales.

In order to achieve a true assessment of what the student understands and is able to do, in words of the Common Core, there should be a wait time of at least one day between the last formative assessment and the summative assessment. A similar assessment task may also be given to students much later in the year if a teacher wants to spiral back to determine how much learning is retained.

Summative assessment tasks can be read to the students, and any non-mathematical terms may be defined. Tasks can be reread during the student's work time, and scribing may be provided for any non-writing or primary students. (For more information on scribing, refer to the section "Scribing at the Primary Level.") No coaching or directions can be given for how a task should be completed. A summative assessment must represent a student's totally independent solution.

### Portfolio Components

A student's working portfolio should include:

- Class pieces
- Scaffold pieces
- Homework pieces
- Edited pieces done after class instruction in the mathematics/problem-solving strategy of the task
- Conferenced pieces with directed editing
- Pieces used as a class to learn strategies, vocabulary and representations
- Pieces used to help students learn to organize and write their solutions
- Tasks used as direct instruction to learn the criteria of the scoring guide
- Tasks for independent student practice

A summative assessment portfolio should include:

- a student's independent problem-solving work that demonstrates what he or she knows and is able to do

# Math Exemplars

## Using the Preliminary Planning Sheets

The Preliminary Planning Sheet (PPS) serves as the teacher’s “blueprint” for each performance task and is a useful tool in lesson preparation. This resource enables teachers to foresee what instruction should be done before the task is used for assessment. It may also be used to anticipate which math concepts and skills students might be required to use.

Each PPS includes the following information:

- the *Underlying Mathematical Concepts* related to the task
- some *Possible Problem-Solving Strategies* that students might use
- some *Possible Mathematical Vocabulary/Symbolic Representation* that students might use
- the *Possible Solutions* that students might find
- some *Possible Connections* that students could make

PPSs are provided with every task. In the summative assessment setting, PPSs are meant to support teachers in assessing student work with the Exemplars rubric. A student may use mathematical vocabulary/strategies/connections/representations that are not evident in any of the anchor papers but are noted on the PPS for the teacher to reference. (Students may also use additional mathematical vocabulary/strategies/connections/representations that are not noted on the PPS or anchor papers, but are mathematically relevant.)

### Accessing Preliminary Planning Sheets

The PPS for any problem may be accessed and printed from the “Plan” section of a task. The information contained in the PPS is also visible in the task overview. Blank PPSs may be found under the “Classroom Resources” section and accessed through your dashboard.

# Preliminary Planning Sheet

Task Name: \_\_\_\_\_

Domain:

Standard:

Math Practices:

Major Underlying Mathematical Concepts

Possible Problem-Solving Strategies

Possible Mathematical Vocabulary/Symbolic Representation

Possible Solution(s)

Possible Connections

# Math Exemplars

## Understanding Differentiated Tasks

The instructional tasks/formative assessments in *Problem Solving for the Common Core* have been differentiated to include a “more accessible” and a “more challenging” version of the original problem. This feature allows teachers to meet the needs of students at various levels as they explore and practice new math concepts. The summative assessment tasks in this resource are not differentiated. In order to meet the standard, students need to successfully complete a summative assessment without differentiation.

Individual PDFs of the task overheads may be printed for students at each of the three levels. Once printed, teachers may refer to the symbols in the header to identify the various levels.

### Symbol Key:

- - Represents the “original” version of the task.
- △ - Represents the “more accessible” version of the task.
- - Represents the “more challenging” version of the task.

Student work and anchor papers are provided only for the original version of the task.

Teachers can make additional alterations as well. For example, under the Common Core Domain Number and Operations, a task could be altered to meet the developmental needs of an individual student. If a kindergarten student only has number sense to 10, a blue block/red block patterning task asking the student to note the color of the 15<sup>th</sup> block could be edited to the 10<sup>th</sup> block. Teachers, however, should be careful not to alter the underlying concept(s) of the problem-solving tasks.

## Using Anchor Papers and Scoring Rationales

Anchor papers provide examples of student work that meets or does not meet a Common Core standard. Each scoring rationale explains why.

The summative assessment tasks in this program include student anchor papers at four levels of performance: Novice, Apprentice, Practitioner (meets the standard) and Expert. Exemplars anchor papers are accompanied by a set of scoring rationales that describe why each piece of student work is assessed at a specific performance level. Rationales are given for each of the five criteria in Exemplars assessment rubric (Problem Solving, Reasoning and Proof, Communication, Connections, Representations). The anchor paper is then given an “overall” assessment score or achievement level.

Anchor papers and scoring rationales are designed to provide guidelines and support for teachers as they assess their own students’ performance in problem solving. They can also be shared with students as examples of what work meets the standard and why or as a basis for self- and peer-assessment.

In many cases, there is more than one anchor paper associated with a level of performance. These are intended to demonstrate different strategies a student might use or different misconceptions a student might have.

## Guiding Questions

Many students enjoy making connections once they learn how to reflect and question effectively. Below are a series of questions that students might consider as they are trying to identify connections:

- What could happen next if I add another ...?
- Are there other mathematical terms I can use?
- Is there another way I can state my thinking? (5 pennies is a nickel, 100 centimeters is one meter, two eyes is a pair, a square is a rectangle, a trapezoid can look different from the red pattern block)
- Is the solution (all the work including the answer) reasonable?
- How is this problem like another problem I did, and what is the mathematical similarity?
- How is this mathematically like something that is in “real life” and how can I explain the mathematics?
- How can I verify that my answer is correct?
- Is there a general rule?
- Is there a mathematical phenomenon in my solution?
- Can I test and accept or reject a hypothesis or conjecture about my solution?

# Math Exemplars

## About Exemplars Rubrics

Exemplars math rubrics may be downloaded from your dashboard.

### Exemplars Assessment Rubric

An important component of this program is the Exemplars Assessment Rubric. Our scoring rubric allows teachers to examine student work against a set of analytic assessment criteria to determine where the student is performing in relationship to each of these criteria.

This assessment tool is designed to identify what is important, define what meets the standard and distinguish between different levels of student performance. The Exemplars rubric consists of four performance levels — Novice, Apprentice, Practitioner (meets the standard) and Expert— and five assessment categories (Problem Solving, Reasoning and Proof, Communication, Connections and Representation). Our rubric criteria reflect the Common Core Standards for Mathematical Practice and parallel the NCTM Process Standards.

### Exemplars Student Rubrics

Rubrics can provide students with valuable information about what is expected and what kind of work meets the standard. They can also be used as a basis for self- and peer-assessment. In addition to our assessment rubric, Exemplars has also created one for students called the Jigsaw Rubric.

A excellent description of how to introduce rubrics to your students resides on Exemplars web site:

<http://www.exemplars.com/resources/rubrics/introducing-rubrics-to-students>.

## Using the Assessment Rubric

The student work in *Problem Solving for the Common Core* is assessed analytically. That is, each criterion of the Exemplars Assessment Rubric — Problem Solving, Reasoning and Proof, Communication, Connections and Representations — is taken into consideration individually when assessing the work. For each criterion, the work is assessed as Novice, Apprentice, Practitioner (meets the standard), or Expert.

The work is then given an Achievement Level Score. In coming to the overall assessment (achievement level), a paper cannot receive a score higher than the lowest score on any of the five criteria. Thus, if a student does not have any representation on her or his work, the “Representation” score would be Novice and the achievement level would be assessed at Novice. If a student has an Apprentice score in “Communication” and all other scores are Practitioner, the student’s achievement level would be assessed at Apprentice. In order to meet the standard, a student has to achieve the Practitioner level or above for each of the five criteria. Because the Exemplars rubric is performance based, it is not possible to take a mode or mean “grade” from the assessed criteria.

While many schools and districts require an overall achievement level for a task, others do not. What is important is to know where the student stands on each criterion and what the next steps are for that student.

Below are sample scoring boxes used to assess a student’s work. (Throughout *Problem Solving for the Common Core*, we have included completed assessment boxes at the top of each piece of student work.) Each box addresses the criteria found in the Exemplars rubric and the corresponding scoring rationales. The sample scoring boxes featured below show scores that would merit the following achievement levels (respectively): Novice, Apprentice, Practitioner, Apprentice, Novice, Apprentice and Expert.

**Key:**

Assessment Rubric Criteria		Achievement Level	
P/S	Problem Solving	N	Novice
R/P	Reasoning and Proof	A	Apprentice
Com	Communication	P	Practitioner
Con	Connections	E	Expert
Rep	Representation		
ACLV	Achievement Level		

**Sample Scoring Boxes:**

P/S	R/P	Com	Con	Rep	ACLV
P	P	N	P	A	N
P/S	R/P	Com	Con	Rep	ACLV
P	P	A	P	P	A
P/S	R/P	Com	Con	Rep	ACLV
P	P	E	P	P	P
P/S	R/P	Com	Con	Rep	ACLV
E	E	E	E	A	A
P/S	R/P	Com	Con	Rep	ACLV
P	P	A	N	N	N
P/S	R/P	Com	Con	Rep	ACLV
A	P	P	P	P	A
P/S	R/P	Com	Con	Rep	ACLV
E	E	E	E	E	E

**\*Exception to the Rule**

The National Council for the Teachers of Mathematics has suggested that the “Connections” criterion can be demanding for students because it requires more cognitive thinking and reflection. (For more information and tips on this subject refer to the section “Understanding Mathematical Connections.”) Therefore, there is one exception to the Achievement Level Score. If a student has all Apprentice scores or above but a Novice in “Connections,” the student may receive an achievement level score of Apprentice. The student cannot be a Practitioner (or Expert) because not all of the criteria scores meet the standard.

An example of this can be seen below:

P/S	R/P	Com	Con	Rep	ACLV
P	P	P	N	P	A
P/S	R/P	Com	Con	Rep	ACLV
P	P	A	N	P	A

The rationale behind this decision is that if a student has correct problem solving and reasoning as well as communication and a correct representation but did not make a mathematical connection, it would be very difficult to assign the student an achievement level of Novice, because the thinking and the solution are correct. This “exception” to the rule is well received by many schools that are looking for a way to give an overall assessment score to a student’s problem-solving piece.

# Exemplars<sup>®</sup> Standards-Based Math Rubric

	Problem Solving	Reasoning and Proof	Communication	Connections	Representation
<b>Novice</b>	<p>No strategy is chosen, or a strategy is chosen that will not lead to a solution.</p> <p>Little or no evidence of engagement in the task present.</p>	<p>Arguments are made with no mathematical basis.</p> <p>No correct reasoning nor justification for reasoning is present.</p>	<p>No awareness of audience or purpose is communicated.</p> <p>No formal mathematical terms or symbolic notations are evident.</p>	<p>No connections are made or connections are mathematically or contextually irrelevant.</p>	<p>No attempt is made to construct a mathematical representation.</p>
<b>Apprentice</b>	<p>A partially correct strategy is chosen, or a correct strategy for only solving part of the task is chosen.</p> <p>Evidence of drawing on some relevant previous knowledge is present, showing some relevant engagement in the task.</p>	<p>Arguments are made with some mathematical basis.</p> <p>Some correct reasoning or justification for reasoning is present.</p>	<p>Some awareness of audience or purpose is communicated.</p> <p>Some communication of an approach is evident through verbal/written accounts and explanations.</p> <p>An attempt is made to use formal math language. One formal math term or symbolic notation is evident.</p>	<p>A mathematical connection is attempted but is partially incorrect or lacks contextual relevance.</p>	<p>An attempt is made to construct a mathematical representation to record and communicate problem solving but is not accurate.</p>

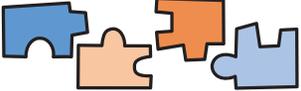
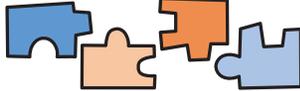
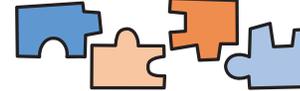
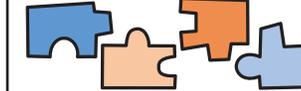
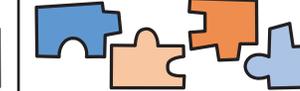
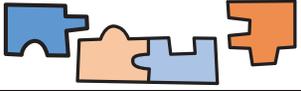
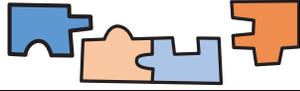
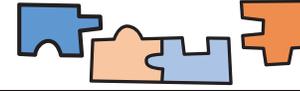
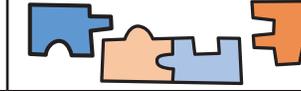
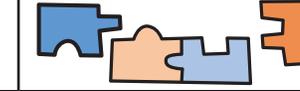
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## Exemplars<sup>®</sup> Standards-Based Math Rubric (cont.)

	Problem Solving	Reasoning and Proof	Communication	Connections	Representation
<b>Practitioner</b>	<p>A correct strategy is chosen based on the mathematical situation in the task.</p> <p>Planning or monitoring of strategy is evident.</p> <p>Evidence of solidifying prior knowledge and applying it to the problem-solving situation is present.</p> <p><i>Note: The Practitioner must achieve a correct answer.</i></p>	<p>Arguments are constructed with adequate mathematical basis.</p> <p>A systematic approach and/or justification of correct reasoning is present.</p>	<p>A sense of audience or purpose is communicated.</p> <p>Communication of an approach is evident through a methodical, organized, coherent, sequenced and labeled response.</p> <p>Formal math language is used to share and clarify ideas. At least two formal math terms or symbolic notations are evident, in any combination.</p>	<p>A mathematical connection is made. Proper contexts are identified that link both the mathematics and the situation in the task.</p> <p>Some examples may include one or more of the following:</p> <ul style="list-style-type: none"> <li>• clarification of the mathematical or situational context of the task</li> <li>• exploration of mathematical phenomenon in the context of the broader topic in which the task is situated</li> <li>• noting patterns, structures and regularities</li> </ul>	<p>An appropriate and accurate mathematical representation is constructed and refined to solve problems or portray solutions.</p>
<b>Expert</b>	<p>An efficient strategy is chosen and progress towards a solution is evaluated.</p> <p>Adjustments in strategy, if necessary, are made along the way, and/or alternative strategies are considered.</p> <p>Evidence of analyzing the situation in mathematical terms and extending prior knowledge is present.</p> <p><i>Note: The Expert must achieve a correct answer.</i></p>	<p>Deductive arguments are used to justify decisions and may result in formal proofs.</p> <p>Evidence is used to justify and support decisions made and conclusions reached.</p>	<p>A sense of audience and purpose is communicated.</p> <p>Communication at the Practitioner level is achieved, and communication of argument is supported by mathematical properties.</p> <p>Formal math language and symbolic notation is used to consolidate math thinking and to communicate ideas. At least one of the math terms or symbolic notations is beyond grade level.</p>	<p>Mathematical connections are used to extend the solution to other mathematics or to a deeper understanding of the mathematics in the task.</p> <p>Some examples may include one or more of the following:</p> <ul style="list-style-type: none"> <li>• testing and accepting or rejecting of a hypothesis or conjecture</li> <li>• explanation of phenomenon</li> <li>• generalizing and extending the solution to other cases</li> </ul>	<p>An appropriate mathematical representation is constructed to analyze relationships, extend thinking and clarify or interpret phenomenon.</p>

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# Exemplars® Jigsaw Student Rubric

Level	Problem Solving	Reasoning and Proof	Communication	Connections	Representation
<b>Novice</b> Makes an effort No or little understanding	I did not understand the problem. 	My math thinking is not correct. 	I used no math language and/or math notation. 	I did not notice anything about the problem or the numbers in my work. 	I did not use a math representation to help solve the problem and explain my work. 
<b>Apprentice</b> Okay, good try Unclear if student understands	I only understand part of the problem. My strategy works for part of the problem. 	Some of my math thinking is correct. 	I used some math language and/or math notation. 	I tried to notice something, but it is not about the math in the problem. 	I tried to use math representation to help solve the problem and explain my work, but it has mistakes in it. 
<b>Practitioner</b> Excellent Clear Strong understanding Meets the standard	I understand the problem and my strategy works. My answer is correct. 	All of my math thinking is correct. 	I used math language and/or math notation accurately throughout my work. 	I noticed something about my math work. 	I made a math representation to help solve the problem and explain my work, and it is labeled and correct. 
<b>Expert</b> Wow, awesome! Exceptional understanding!	I understand the problem. My answer is correct. I used a rule, and/or verified that my strategy is correct. 	I showed that I knew more about a math idea that I used in my plan. Or, I explained my rule. 	I used a lot of specific math language and/or notation accurately throughout my work. 	I noticed something in my work, and used that to extend my answer and/or I showed how this problem is like another problem. 	I used another math representation to help solve the problem and explain my work in another way. 

# Math Exemplars

## Using Student Portfolios

Throughout the school year, Exemplars encourages teachers to keep two student portfolios. The first could be either a pocket folder or binder that contains a student’s instructional tasks/formative assessments. These “working portfolios” should be placed in the classroom where students can access them on a regular basis. The second should be a file that the teacher keeps to store each summative assessment problem-solving task that a student completes. The working portfolio allows teachers to assess what the student knows using four guiding lenses.

- What do I know this student knows?
- What does this student need to practice?
- What does this student need to relearn?
- What is this student ready to learn (do next)?

Instructional tasks/formative assessments are viewed as opportunities for students to learn new mathematical strategies, vocabulary and notation and representations. Students can also explore mathematical connections and self-assess their solutions. These tasks may be done alone, in pairs, in groups or as a whole class. Direct instruction may also be used to question and support classroom discussion around the underlying mathematical concepts in a problem.

Teachers should use formative assessment tasks to observe and support student understanding. As part of this process, conferencing and editing can occur and students can revisit their work as often as necessary. Teachers can use similar tasks throughout a unit of study to give a student multiple opportunities to use new learning in her/his solution and to gain independence in arriving at a correct answer.

In contrast, summative assessment tasks are given at the end of a unit of study. Summative assessment tasks are identified throughout *Problem Solving for the Common*. These tasks include a set of anchor papers and scoring rationales.

In order to achieve a true assessment of what the student understands and is able to do, in words of the Common Core, there should be a wait time of at least one day between the last formative assessment and the summative assessment. A similar assessment task may also be given to students much later in the year if a teacher wants to spiral back to determine how much learning is retained.

Summative assessment tasks can be read to the students, and any non-mathematical terms may be defined. Tasks can be reread during the student’s work time, and scribing may be provided for any non-writing or primary students. (For more information on scribing, refer to the section “Scribing at the Primary Level.”) No coaching or directions can be given for how a task should be completed. A summative assessment must represent a student’s totally independent solution.

## Portfolio Components

A student’s working portfolio should include:

- Class pieces
- Scaffold pieces
- Homework pieces
- Edited pieces done after class instruction in the mathematics/problem-solving strategy of the task
- Conferenced pieces with directed editing
- Pieces used as a class to learn strategies, vocabulary and representations
- Pieces used to help students learn to organize and write their solutions
- Tasks used as direct instruction to learn the criteria of the scoring guide
- Tasks for independent student practice

A summative assessment portfolio should include:

- a student’s independent problem-solving work that demonstrates what he or she knows and is able to do

## Projects $M^2$ and $M^3$

**Projects  $M^2$  and  $M^3$**  lessons are based on 50-minute class times. The Canyons School District math block is 90 minutes and pacing for  $M^2$  in the map correlates with the 90-minute time. For example,  $M^2$  pacing suggests that most Units take approximately 30 days to teach, based on a 50-minute period. Please use the Pacing Guide to plan  $M^2$  lessons accordingly.

**Projects  $M^2$  and  $M^3$**  are each a series of six curriculum units designed for grades K-2 ( $M^2$ ) and 3-5 ( $M^3$ ) to foster inquiry and engage students in critical thinking, problem solving, and communication activities. **Projects  $M^2$  and  $M^3$**  deliver even more ways for teachers to motivate and challenge advanced students in grades 1-5 and support the Common Core Standards and NAGC exemplary practices.

The program provides simulated or real-life problems so students can actively solve them in the same ways that practicing mathematicians do. Rich verbal and written mathematical communication is a key component of **Project  $M^2$  and  $M^3$** .

Each Unit includes Teacher's Guide, Teacher Resource Pack: Hint and Think Beyond Cards, Word Wall Cards, Student Mathematician's Journal and Manipulatives

Website: [k12.kendallhunt.com](http://k12.kendallhunt.com)

## Problem Based Interactive Learning Routine

(from enVision)

### Best Practice

#### Explicit Planning:

- Objective
- Vocabulary
- Manipulatives
- Partnering, roles and tasks
- Plan for OTRs
- Plan for predictable failures

#### Lesson Objective:

- Stated and written down
- Needs to be repeated by students
- Teacher needs to refer to throughout the lesson

#### Connecting to Prior Knowledge:

- What do students already know
  - "Remember yesterday when. . ."
  - "We talked about tenths, and hundredths on Monday. . ."

#### Lively Discussion:

- How did you arrive at your answer?
- What was your process or strategy?
- Defend your answer

#### Manipulatives:

- Accessible and organized
- Model their use
- An expectation of use

#### Strategic Student Sharing:

- Teacher monitors room to find a target example
- 2 minute quick share with a task for the listeners

#### Teacher Moves:

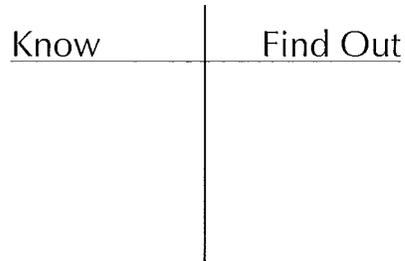
- Teacher uses the student demonstration to build on the strategy
- Teacher explicitly reinforces the important mathematics embedded in the task
- Teach thinking and scaffold toward efficient problem solving strategies with problems connected to the objective

Math-20

# Math Problem-Solving Steps

(from Math Exemplars)

1. Read the problem
2. Highlight the important information
3. What do you know? What do you need to find out?



## 4. Plan how to solve the problem

- a. What skills are needed?
- b. What strategies can you use?
- c. What ideas will help you?

## 5. Solve the problem

- a. Draw and write about your solution and how you solved the problem

## 6. Check your answer

## 7. Share a connection or observation about this problem

## Systematic Vocabulary Routine- Math

<b>Acquisition</b>	<p><b>Introduction Phase</b></p> <ol style="list-style-type: none"> <li>1. Teacher writes/says the word.</li> <li>2. Students repeat the word.</li> <li>3. Multisyllabic breakdown</li>   <li>4. Teacher gives a student friendly definition, incorporating synonyms as appropriate.</li> <li>5. Students restate definition with teacher guidance.</li>   <li>6. Teacher identifies any prefixes, suffixes, base/root words, origin, etc.</li> </ol>	<p><b>Teacher/Student Responsibilities</b></p> <p>T: The word is polygon. What word?  S: polygon  T: Let's clap/tap "polygon" into syllables.  T &amp; S: "pol" "y" "gon".  T: How many syllables?  S: 3 syllables  T: A closed plane figure with three or more sides that is made up of line segments that do not cross.</p> <p>T &amp; S: A closed plane figure with three or more sides that is made up of line segments that do not cross is called a _____.</p> <p>T: The prefix "poly" means much or many. So a polygon has not just one side, but many sides.</p>
<b>Building Automaticity</b>	<p><b>Demonstration Phase</b></p> <ol style="list-style-type: none"> <li>7. Illustrate with examples/non-examples <ol style="list-style-type: none"> <li>a) Concrete examples (<i>realia</i>)</li> <li>b) Visual representations—video, pictures, diagrams, etc.</li> <li>c) Physical gesture</li> <li>d) Verbal Examples</li> <li>e) Sentence Frames (ex. If I had to survive cold weather, I would need _____).</li> </ol> </li>   <li>8. Check for students' understanding by discerning between examples and non-examples (repeat as necessary)</li> </ol>	<p>T: Look at the figures on this picture. This figure is a polygon because it is closed figure, it is made of line segments that do not cross. These figures are not polygons because they have curved lines, they are open, and some have crossed lines.</p> <p>T: (Example) Draw a polygon on the board? Ones tell your partner if this is a polygon and explain why or why not.  S1: The figure is a polygon because it has line segments that are closed and they do not cross.  T: (Non-example) Draw a figure that is not a polygon on the board. Twos tell your partner if this is a polygon and explain why or why not.  S2: The figure is not a polygon because it is made of curved lines and it is also not closed.</p>
<b>Application</b>	<p><b>Application Phase</b></p> <ol style="list-style-type: none"> <li>9. Deepen students' understanding by applying the word in a new context <ol style="list-style-type: none"> <li>a) Teacher asks a deep processing question</li> <li>b) Students respond via a quick write and/or orally with a partner or in a small group or whole group setting.</li> </ol> </li> </ol>	<ul style="list-style-type: none"> <li>• Students use the word in a sentence. The sentence must be at least five words long.</li> <li>• Number 2's will say the sentence while number 1's count the words in the sentence and makes sure the sentence is a true statement. They switch and follow the same procedure.</li> </ul>

**Evidence-Based Instructional Priorities**  
Applied to Math Instruction

<b>Explicit Instruction</b> I Do - We Do - Y'all Do - You Do Model - Guide Practice – Partner - Independent			
<b>Systematic</b> <input type="checkbox"/> Focused on critical content <input type="checkbox"/> Skills, strategies, and concepts are sequenced logically <input type="checkbox"/> Break down complex skills <input type="checkbox"/> Lessons are organized and focused <input type="checkbox"/> Instructional routines are used <input type="checkbox"/> Examples and non-examples <input type="checkbox"/> Step-by-step demonstrations <input type="checkbox"/> C-R-A Model	<b>Relentless</b> <input type="checkbox"/> Adequate initial practice NOTE: Students who struggle may require 10-30 more times as many practice opportunities than their peers. <input type="checkbox"/> Distributed practice--frequent exposure to content/skill over time <input type="checkbox"/> Daily review <input type="checkbox"/> Daily focus on number sense and problem solving <input type="checkbox"/> Teach to mastery <input type="checkbox"/> Cumulative review periodically	<b>Engaging</b> <input type="checkbox"/> Increasing Opportunities to Respond <input type="checkbox"/> Explicit Vocabulary Instruction <input type="checkbox"/> Feedback <input type="checkbox"/> Instructional Grouping <input type="checkbox"/> Acquire – Auto – Apply <input type="checkbox"/> Classroom PBIS <input type="checkbox"/> Create various contexts for problem solving that students can relate to <input type="checkbox"/> Pacing	
<b>Increasing Opportunities to Respond</b> <i>Saying, Writing, Doing</i>		<b>Explicit Vocabulary Instruction</b>	
<input type="checkbox"/> <b>Choral Responses:</b> give think time, use a signal for response, repeat if all students don't respond <input type="checkbox"/> <b>Partner Sharing:</b> Look-Lean-Whisper; Think-Pair-Share; Study-Tell-Help-Check <input type="checkbox"/> <b>Individual Responses:</b> give wait time, individual shares after partner discussion, Cold Call, random calling pattern <input type="checkbox"/> <b>Math Journals:</b> Quick Writes, vocabulary practice, draw visuals of math concepts <input type="checkbox"/> <b>Individual White Boards:</b> use a signal for displaying, establish a routine, provide feedback <input type="checkbox"/> <b>Manipulatives:</b> establish a routine, explain expectations, all students interact with materials, provide visual bridge to concept <input type="checkbox"/> <b>Response Cards:</b> yes/no; odd/even; +/-; $</>/=$ ; etc. <input type="checkbox"/> <b>Action Responses:</b> thumbs up/down; modeling operations, angles, or other math concepts, act it out, hand signals		<input type="checkbox"/> <b>Introduce the word</b> <ul style="list-style-type: none"> <li>Teacher says the word and posts the word</li> <li>All students repeat the word</li> <li>Teacher gives a child-friendly definition</li> <li>All students repeat the definition (with teacher guidance)</li> <li>Repeat above steps as necessary</li> </ul> <input type="checkbox"/> <b>Demonstrate</b> <ul style="list-style-type: none"> <li>Provide an example</li> <li>Provide a non-example</li> <li>Repeat above steps as necessary</li> </ul> <input type="checkbox"/> <b>Apply</b> <ul style="list-style-type: none"> <li>Students turn to a partner and use the word in a sentence</li> <li>Teacher shares a sentence using the word</li> </ul> <input type="checkbox"/> <b>Vocabulary Cards:</b> Grade-level vocabulary cards available on the math website; posted on Word Wall	
<b>Feedback</b> <input type="checkbox"/> Corrective and Affirmative <input type="checkbox"/> Timely and Frequent <input type="checkbox"/> Specific and Reinforcing	<b>Instructional Grouping</b> <input type="checkbox"/> Whole group, Small groups, Partners <input type="checkbox"/> Fluid and flexible <input type="checkbox"/> Skill-Based Small Group Instruction for identified skill gaps or extension	<b>Acquire – Auto – Apply</b> <input type="checkbox"/> Learn (acquire) the skill <input type="checkbox"/> Build the skill to automaticity <input type="checkbox"/> Attend to fluency standards in the core <input type="checkbox"/> Apply the skill	<b>Classroom PBIS</b> <input type="checkbox"/> Forming clear behavior expectations <input type="checkbox"/> Explicitly teaching expectations to students <input type="checkbox"/> Reinforcing expectations with students <input type="checkbox"/> Correcting of problem behaviors in a systematic manner

# Third Grade Utah State Core Math Standards Overview

## Third Grade Overview

### Mathematical Practices (3.MP)

The eight mathematical habits of mind that teachers seek to develop in their students.

### Operations and Algebraic Thinking (3.OA)

- Represent and solve problems involving multiplication and division.
- Understand properties of multiplication and the relationship between multiplication and division.
- Multiply and divide within 100.
- Solve problems involving the four operations, and identify and explain patterns in arithmetic.

### Number and Operations in Base Ten (3.NBT)

- Use place value understanding and properties of operations to perform multi-digit arithmetic.

### Number and Operations - Fractions (3.NF)

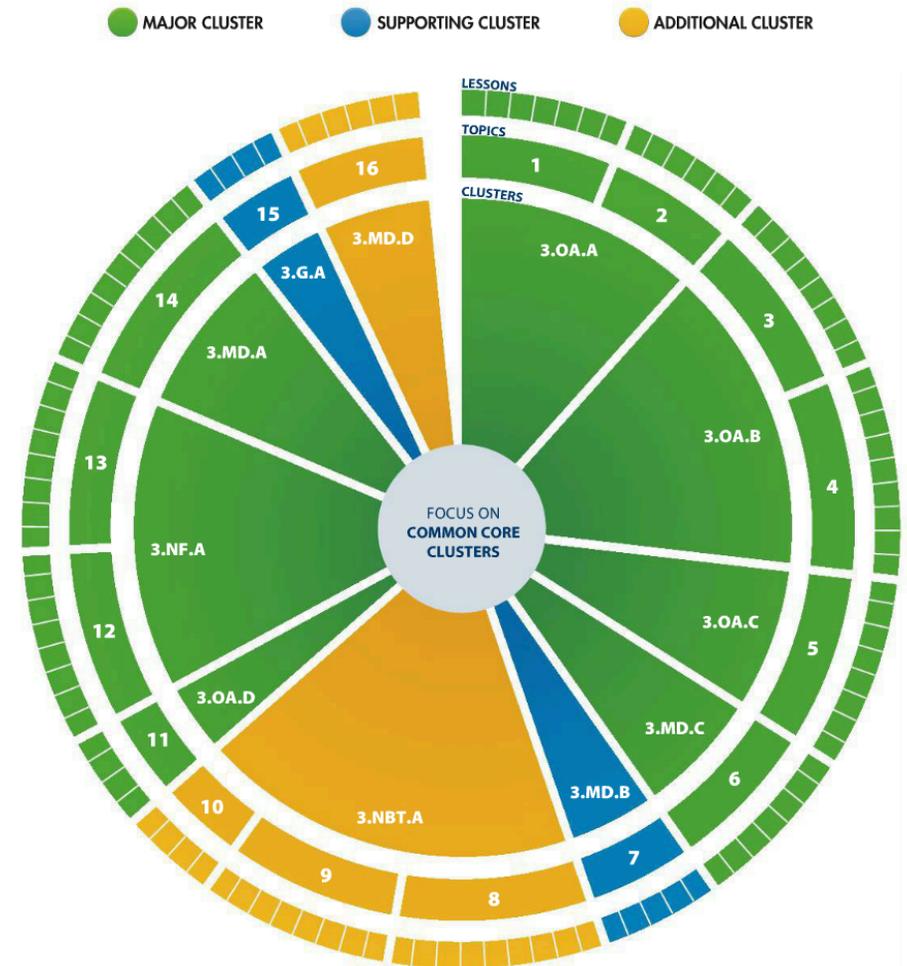
- Develop understanding of fractions as numbers.

### Measurement and Data (3.MD)

- Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.
- Represent and interpret data.
- Geometric measurement: understand concepts of area and related area to multiplication and to addition
- Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

### Geometry (3.G)

- Reason with shapes and their attributes.



## Mathematics | Grade 3

In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

**(1)** Students will develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students will use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.

**(2)** Students will develop an understanding of fractions, beginning with unit fractions. Students will view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole. *For example,  $\frac{1}{2}$  of the paint in a small bucket could be less paint than  $\frac{1}{3}$  of the paint in a larger bucket, but  $\frac{1}{3}$  of a ribbon is longer than  $\frac{1}{5}$  of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts.* Students will be able to use fractions to represent numbers equal to, less than, and greater than one. They will solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.

**(3)** Students will recognize area as an attribute of two-dimensional regions. They will measure the area of a shape by finding the total number of same-size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area. Students will understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students will connect area to multiplication and justify using multiplication to determine the area of a rectangle.

**(4)** Students will describe, analyze, and compare properties of two-dimensional shapes. They will compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students will also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

**Strand: MATHEMATICAL PRACTICES (3.MP)**

The Standards for Mathematical Practice in Third Grade describe mathematical habits of mind that teachers should seek to develop in their students. Students become mathematically proficient in engaging with mathematical content and concepts as they learn, experience, and apply these skills and attitudes (**Standards 3.MP.1–8**).

- **Standard 3.MP.1 Make sense of problems and persevere in solving them.** Explain the meaning of a problem, look for entry points to begin work on the problem, and plan and choose a solution pathway. When a solution pathway does not make sense, look for another pathway that does. Explain connections between various solution strategies and representations. Upon finding a solution, look back at the problem to determine whether the solution is reasonable and accurate, often checking answers to problems using a different method or approach.
- **Standard 3.MP.2 Reason abstractly and quantitatively.** Make sense of quantities and their relationships in problem situations. Contextualize quantities and operations by using images or stories. Decontextualize a given situation and represent it symbolically. Interpret symbols as having meaning, not just as directions to carry out a procedure. Know and flexibly use different properties of operations, numbers, and geometric objects.
- **Standard 3.MP.3 Construct viable arguments and critique the reasoning of others.** Use stated assumptions, definitions, and previously established results to construct arguments. Explain and justify the mathematical reasoning underlying a strategy, solution, or conjecture by using concrete referents such as objects, drawings, diagrams, and actions. Listen to or read the arguments of others, decide whether they make sense, ask useful questions to clarify or improve the arguments, and build on those arguments.
- **Standard 3.MP.4 Model with mathematics.** Identify the mathematical elements of a situation and create a mathematical model that shows the relationships among them. Identify important quantities in a contextual situation, use mathematical models to show the relationships of those quantities, analyze the relationships, and draw conclusions. Models may be verbal, contextual, visual, symbolic, or physical.
- **Standard 3.MP.5 Use appropriate tools strategically.** Consider the tools that are available when solving a mathematical problem, whether in a real-world or mathematical context. Choose tools that are relevant and useful to the problem at hand, such as drawings, diagrams, technologies, and physical objects and tools, as well as mathematical tools such as estimation or a particular strategy or algorithm.
- **Standard 3.MP.6 Attend to precision.** Communicate precisely to others by crafting careful explanations that communicate mathematical reasoning by referring specifically to each important mathematical element, describing the relationships among them, and connecting their words clearly to representations. Calculate accurately and efficiently, and use clear and concise notation to record work.

- **Standard 3.MP.7 Look for and make use of structure.** Recognize and apply the structures of mathematics such as patterns, place value, the properties of operations, or the flexibility of numbers. See complicated things as single objects or as being composed of several objects.
- **Standard 3.MP.8 Look for and express regularity in repeated reasoning.** Notice repetitions in mathematics when solving multiple related problems. Use observations and reasoning to find shortcuts or generalizations. Evaluate the reasonableness of intermediate results.

### Strand: OPERATIONS AND ALGEBRAIC THINKING (3.OA)

Represent and solve problems involving multiplication and division within 100 (**Standards 3.OA.1–4 and Standard 3.OA.7**). They demonstrate understanding of the properties of multiplication and the relationship between multiplication and division (**Standards 3.OA.5–6**). Students use the four operations to identify and explain patterns in arithmetic (**Standards 3.OA.8–9**).

- **Standard 3.OA.1** Interpret products of whole numbers, such as interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as  $5 \times 7$ .*
- **Standard 3.OA.2** Interpret whole-number quotients of whole numbers. *For example, interpret  $56 \div 8$  as the number of objects in each share when 56 objects are partitioned equally into eight shares (partitive), or as a number of shares when 56 objects are partitioned into equal shares of eight objects each (quotative).*
- **Standard 3.OA.3** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. *For example, use drawings and equations with a symbol for the unknown number to represent the problem.*
- **Standard 3.OA.4** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number—product, factor, quotient, dividend, or divisor—that makes the equation true in each of the equations  $8x = 48$ ,  $5 = ? \div 3$ ,  $6 \times 6 = ?$ .*
- **Standard 3.OA.5** Apply properties of operations as strategies to multiply and divide. *For example: If  $6 \times 4 = 24$  is known, then  $4 \times 6 = 24$  is also known (commutative property of multiplication).  $3 \times 5 \times 2$  can be found by  $3 \times 5 = 15$ , then  $15 \times 2 = 30$ , or by  $5 \times 2 = 10$ , then  $3 \times 10 = 30$  (associative property of multiplication). Knowing that  $8 \times 5 = 40$  and  $8 \times 2 = 16$ , one can find  $8 \times 7$  as  $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$  (distributive property). (Third grade students may, but need not, use formal terms for these properties.)*
- **Standard 3.OA.6** Understand division as an unknown-factor problem. Understand the relationship between multiplication and division (multiplication and division are inverse operations). *For example, find  $32 \div 8$  by finding the number that makes 32 when multiplied by 8.*

- **Standard 3.OA.7** Fluently multiply and divide.
  - a. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. (*For example, knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ .*)
  - b. By the end of Grade 3, know from memory all products of two one-digit numbers.
- **Standard 3.OA.8** Solve two-step word problems.
  - a. Solve two-step word problems using the four operations. Know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations). (Limit to problems posed with whole numbers and having whole number answers.)
  - b. Represent two-step problems using equations with a letter standing for the unknown quantity. Create accurate equations to match word problems.
  - c. Assess the reasonableness of answers using mental computation and estimation strategies, including rounding.
- **Standard 3.OA.9** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. (*For example, observe that four times a number is always even, and explain why four times a number can be decomposed into two equal addends.*)

### Strand: NUMBER AND OPERATIONS IN BASE TEN (3.NBT)

Use place value understanding and properties of operations to perform multi-digit arithmetic. A range of algorithms may be used (**Standards 3.NBT.1–3**).

- **Standard 3.NBT.1** Use place value understanding to round whole numbers to the nearest 10 or 100.
- **Standard 3.NBT.2** Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **Standard 3.NBT.3** Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (*for example,  $9 \times 80$  and  $5 \times 60$* ) using strategies based on place value and properties of operations.

### Strand: NUMBER AND OPERATIONS—FRACTIONS (3.NF)

Develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8 in third grade.

- **Standard 3.NF.1** Understand that a unit fraction has a numerator of one and a non-zero denominator.

- a. Understand a fraction  $1/b$  as the quantity formed by one part when a whole is partitioned into  $b$  equal parts.
- b. Understand a fraction  $a/b$  as the quantity formed by  $a$  parts of size  $1/b$ . *For example:  $1/4 + 1/4 + 1/4 = 3/4$ .*

■ **Standard 3.NF.2** Understand a fraction as a number on the number line; represent fractions on a number line diagram.

- a. Represent a fraction  $1/b$  on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into  $b$  equal parts. Recognize that each part has size  $1/b$  and that the endpoint of the part based at 0 locates the number  $1/b$  on the number line.
- b. Represent a fraction  $a/b$  on a number line diagram by marking off  $a$  lengths  $1/b$  from 0. Recognize that the resulting interval has size  $a/b$  and that its endpoint locates the number  $a/b$  on the number line.

■ **Standard 3.NF.3** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

- a. Understand two fractions as equivalent if they are the same size, or the same point on a number line.
- b. Recognize and generate simple equivalent fractions, such as  $1/2 = 2/4$ ,  $4/6 = 2/3$ . *Explain why the fractions are equivalent by using a visual fraction model, for example.*
- c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *For example, express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.*
- d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. *Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, for example, by using a visual fraction model.*

### Strand: MEASUREMENT AND DATA (3.MD)

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. (**Standards 1–2**). Represent and interpret data (**Standards 3.MD.3–4**). Understand concepts of area and relate area to multiplication and addition (**Standards 3.MD.5–7**). Recognize perimeter as an attribute of plane figures and distinguish between linear and area measures (**Standard 3.MD.8**).

■ **Standard 3.MD.1** Tell and write time to the nearest minute and measure time intervals in minutes. *Solve word problems involving addition and subtraction of time intervals in minutes, for example, by representing the problem on a number line diagram.*

■ **Standard 3.MD.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), milliliters (ml), and liters (l). (Excludes compound

units such as cubic centimeters [cc or  $\text{cm}^3$ ] and finding the geometric volume of a container.) *Add, subtract, multiply, or divide to solve one-step word problems involving masses of objects or volumes of liquids that are given in the same units, for example, by using drawings (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems.)*

- **Standard 3.MD.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent five pets.*
- **Standard 3.MD.4** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot where the horizontal scale is marked off in appropriate units-whole numbers, halves, or quarters.
- **Standard 3.MD.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.
  - a. A square with side length one unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
  - b. A plane figure which can be covered without gaps or overlaps by  $n$  unit squares is said to have an area of  $n$  square units.
- **Standard 3.MD.6** Measure area by counting unit squares (square centimeters, square meters, square inches, square feet, and improvised units).
- **Standard 3.MD.7** Relate area to the operations of multiplication and addition (refer to 3.OA.5).
  - a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
  - b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
  - c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths  $a$  and  $b + c$  is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.
  - d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.
- **Standard 3.MD.8** Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

**Strand: GEOMETRY (3.G)**

Reason with shapes and their attributes (**Standards 3.G.1–2**).

- **Standard 3.G.1** Understand that shapes in different categories (*for example, rhombuses, rectangles, and others*) may share attributes (*for example, having four sides*), and that the shared attributes can define a larger category (*for example, quadrilaterals*). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
- **Standard 3.G.2** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into four parts with equal area, and describe the area of each part as  $\frac{1}{4}$  of the area of the shape.*

3<sup>rd</sup> Grade Utah Core State Standards for Mathematics

**MATHEMATICAL PRACTICES**

Previous	2016/2017
<p><b>Mathematical Practices</b></p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	<p><b>Strand: MATHEMATICAL PRACTICES (3.MP)</b>                      The Standards for Mathematical Practice in Third Grade describe mathematical habits of mind that teachers should seek to develop in their students. Students become mathematically proficient in engaging with mathematical content and concepts as they learn, experience, and apply these skills and attitudes (<b>Standards 3.MP.1-8</b>).</p> <p><b>Standard 3.MP.1 Make sense of problems and persevere in solving them.</b> Explain the meaning of a problem, look for entry points to begin work on the problem, and plan and choose a solution pathway. When a solution pathway does not make sense, look for another pathway that does. Explain connections between various solution strategies and representations. Upon finding a solution, look back at the problem to determine whether the solution is reasonable and accurate, often checking answers to problems using a different method or approach.</p> <p><b>Standard 3.MP.2 Reason abstractly and quantitatively.</b> Make sense of quantities and their relationships in problem situations. Contextualize quantities and operations by using images or stories. Decontextualize a given situation and represent it symbolically. Interpret symbols as having meaning, not just as directions to carry out a procedure. Know and flexibly use different properties of operations, numbers, and geometric objects.</p> <p><b>Standard 3.MP.3 Construct viable arguments and critique the reasoning of others.</b> Use stated assumptions, definitions, and previously established results to construct arguments. Explain and justify the mathematical reasoning underlying a strategy, solution, or conjecture by using concrete referents such as objects, drawings, diagrams, and actions. Listen to or read the arguments of others, decide whether they make sense, ask useful questions to clarify or improve the arguments, and build on those arguments.</p> <p><b>Standard 3.MP.4 Model with mathematics.</b> Identify the mathematical elements of a situation and create a mathematical model that shows the relationships among them. Identify important quantities in a contextual situation, use mathematical models to show the relationships of those quantities, analyze the relationships, and draw conclusions. Models may be verbal, contextual, visual, symbolic, or physical.</p> <p><b>Standard 3.MP.5 Use appropriate tools strategically.</b> Consider the tools that are available when solving a mathematical problem, whether in a real-world or mathematical context. Choose tools that are relevant and useful to the problem at hand, such as drawings, diagrams, technologies, and</p>

	<p>physical objects and tools, as well as mathematical tools such as estimation or a particular strategy or algorithm.</p> <p><b>Standard 3.MP.6 Attend to precision.</b> Communicate precisely to others by crafting careful explanations that communicate mathematical reasoning by referring specifically to each important mathematical element, describing the relationships among them, and connecting their words clearly to representations. Calculate accurately and efficiently, and use clear and concise notation to record work.</p> <p><b>Standard 3.MP.7 Look for and make use of structure.</b> Recognize and apply the structures of mathematics such as patterns, place value, the properties of operations, or the flexibility of numbers. See complicated things as single objects or as being composed of several objects.</p> <p><b>Standard 3.MP.8 Look for and express regularity in repeated reasoning.</b> Notice repetitions in mathematics when solving multiple related problems. Use observations and reasoning to find shortcuts or generalizations. Evaluate the reasonableness of intermediate results.</p>
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**OPERATIONS AND ALGEBRAIC THINKING**

Previous	2016/2017
<p><b>Operations and Algebraic Thinking</b> <b>3.OA</b></p> <p><b>Represent and solve problems involving multiplication and division 3.OA.A</b></p> <ol style="list-style-type: none"> <li>1. Interpret products of whole numbers, e.g., interpret <math>5 \times 7</math> as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as <math>5 \times 7</math>.</i></li> <li>2. Interpret whole-number quotients of whole numbers, e.g., interpret <math>56 \div 8</math> as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. <i>For example, describe a context in which a number of shares or a number of groups can be</i></li> </ol>	<p><b>Strand: OPERATIONS AND ALGEBRAIC THINKING (3.OA)</b></p> <p>Represent and solve problems involving multiplication and division within 100 (<b>Standards 3.OA.104 and Standard 3.OA.7</b>). They demonstrate understanding of the properties of multiplication and the relationship between multiplication and division (<b>Standards 3.OA.5-6</b>). Students use the four operations to identify and explain patterns in arithmetic (<b>Standards 3.OA.8-9</b>).</p> <p><b>Standard 3.OA.1</b> Interpret products of whole numbers, such as interpret <math>5 \times 7</math> as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as <math>5 \times 7</math>.</i></p> <p><b>Standard 3.OA.2</b> Interpret whole-number quotients of whole numbers. <i>For example, interpret <math>56 \div 8</math> as the number of objects in each share when 56 objects are partitioned equally into eight shares (partitive), or as a number of shares when 56 objects are partitioned into equal shares of eight objects each (quotative).</i></p>

expressed as  $56 \div 8$ .

- Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.<sup>1</sup>
- Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations  $8 \times ? = 48$ ,  $5 = ? \div 3$ ,  $6 \times 6 = ?$ .*

### **Understand properties of multiplication and the relationship between multiplication and division. 3.OA.B**

5. Apply properties of operations as strategies to multiply and divide.<sup>2</sup> *Examples: If  $6 \times 4 = 24$  is known, then  $4 \times 6 = 24$  is also known. (Commutative property of multiplication.)  $3 \times 5 \times 2$  can be found by  $3 \times 5 = 15$ , then  $15 \times 2 = 30$ , or by  $5 \times 2 = 10$ , then  $3 \times 10 = 30$ . (Associative property of multiplication.) Knowing that  $8 \times 5 = 40$  and  $8 \times 2 = 16$ , one can find  $8 \times 7$  as  $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ . (Distributive property.)*

6. Understand division as an unknown-factor problem. *For example, find  $32 \div 8$  by finding the number that makes 32 when multiplied by 8.*

### **Multiply and divide within 100. 3.OA.C**

**Standard 3.OA.3** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. *For example, use drawings and equations with a symbol for the unknown number to represent the problem.*

**Standard 3.OA.4** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number—product, factor, quotient, dividend, or divisor—that makes the equation true in each of the equations  $8 \times ? = 48$ ,  $5 = ? \div 3$ ,  $6 \times 6 = ?$ .*

**Standard 3.OA.5** Apply properties of operations as strategies to multiply and divide. *For example: If  $6 \times 4 = 24$  is known, then  $4 \times 6 = 24$  is also known (commutative property of multiplication).  $3 \times 5 \times 2$  can be found by  $3 \times 5 = 15$ , then  $15 \times 2 = 30$ , or by  $5 \times 2 = 10$ , then  $3 \times 10 = 30$  (associative property of multiplication). Knowing that  $8 \times 5 = 40$  and  $8 \times 2 = 16$ , one can find  $8 \times 7$  as  $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$  (distributive property). (Third grade students may, but need not, use formal terms for these properties.)*

**Standard 3.OA.6** Understand division as an unknown-factor problem. Understand the relationship between multiplication and division (multiplication and division are inverse operations). *For example, find  $32 \div 8$  by finding the number that makes 32 when multiplied by 8.*

**Standard 3.OA.7** Fluently multiply and divide.

- Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. *(For example, knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ ).*
- By the end of Grade 3, know from memory all products of two one-digit numbers.

**Standard 3.OA.8** Solve two-step word problems.

- Solve two-step word problems using the four operations.

7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

**Solve problems involving the four operations, and identify and explain patterns in arithmetic. 3.OA.D**

8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.<sup>3</sup>

9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

Know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations). (Limit to problems posed with whole numbers and having whole number answers.)

- b. Represent two-step problems using equations with a letter standing for the unknown quantity. Create accurate equations to match word problems.
- c. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

**Standard 3.OA.9** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that four times a number is always even, and explain why four times a number can be decomposed into two equal addends.*

**NUMBER AND OPERATIONS IN BASE TEN**

**Previous**

**2016/2017**

**Number and Operations Base Ten  
3.NBT.A**

**Use place value understanding and properties of operations to perform multi-digit arithmetic 3.NBT**

- 1. Use place value understanding to round whole numbers to the nearest 10 or 100.

**Strand: NUMBER AND OPERATIONS IN BASE TEN (3.NBT)**

Use place value understanding and properties of operations to perform multi-digit arithmetic. A range of algorithms may be used (Standards 3.NBT.1-3).

**Standard 3.NBT.1** Use place value understanding to round whole numbers to the nearest 10 or 100.

<p>2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., <math>9 \times 80</math>, <math>5 \times 60</math>) using strategies based on place value and properties of operations.</p>	<p><b>Standard 3.NBT.2</b> Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p><b>Standard 3.NBT.3</b> Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (<i>for example, <math>9 \times 80</math> and <math>5 \times 60</math></i>) using strategies based on place value and properties of operations.</p>
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**NUMBER AND OPERATIONS—FRACTIONS (3.NF)**

Previous	2016/2017
<p><b>Number and Operations-Fractions</b> <b>3.NF</b></p> <p><b>Develop understanding of fractions as numbers 3.NF</b></p> <ol style="list-style-type: none"> <li>1 Understand a fraction <math>1/b</math> as the quantity formed by 1 part when a whole is partitioned into <math>b</math> equal parts; understand a fraction <math>a/b</math> as the quantity formed by <math>a</math> parts of size <math>1/b</math>.</li> <li>2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.               <ol style="list-style-type: none"> <li>a. Represent a fraction <math>1/b</math> on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into <math>b</math> equal parts. Recognize that each part has size <math>1/b</math> and that the endpoint of the part based at 0 locates the number <math>1/b</math> on the number line.</li> <li>b. Represent a fraction <math>a/b</math> on a number line diagram by marking off <math>a</math> lengths <math>1/b</math> from 0. Recognize that the resulting interval has size <math>a/b</math> and that its endpoint locates the number <math>a/b</math> on the number line.</li> </ol> </li> </ol>	<p><b>Strand: NUMBER AND OPERATIONS—FRACTIONS (3.NF)</b></p> <p>Develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8 in third grade.</p> <p><b>Standard 3.NF.1</b> Understand that a unit fraction has a numerator of 1, and a non-zero denominator.</p> <ol style="list-style-type: none"> <li>a. Understand a fraction <math>1/b</math> as the quantity formed by one part, when a whole is partitioned into <math>b</math> equal parts.</li> <li>b. Understand a fraction <math>a/b</math> as the quantity formed by <math>a</math> parts of size <math>1/b</math>. <i>For example: <math>1/4 + 1/4 + 1/4 = 3/4</math>.</i></li> </ol> <p><b>Standard 3.NF.2</b> Understand a fraction as a number on the number line; represent fractions on a number line diagram.</p> <ol style="list-style-type: none"> <li>a. Represent a fraction <math>1/b</math> on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into <math>b</math> equal parts. Recognize that each part has size <math>1/b</math> and that the endpoint of the part based at 0 locates the number <math>1/b</math> on the number line.</li> <li>b. Represent a fraction <math>a/b</math> on a number line diagram by marking off <math>a</math> lengths <math>1/b</math> from 0. Recognize that the resulting interval has size <math>a/b</math> and that its endpoint locates the number <math>a/b</math> on the number line.</li> </ol>

3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
- Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
  - Recognize and generate simple equivalent fractions, e.g.,  $1/2 = 2/4$ ,  $4/6 = 2/3$ . Explain why the fractions are equivalent, e.g., by using a visual fraction model.
  - Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.*
  - Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual fraction model.

**Standard 3.NF.3** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

- Understand two fractions as equivalent if they are the same size, or the same point on a number line.
- Recognize and generate simple equivalent fractions, such as  $1/2 = 2/4$ ,  $4/6 = 2/3$ . *Explain why the fractions are equivalent by using a visual fraction model, for example.*
- Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *For example, express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.*
- Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. *Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, for example, by using a visual fraction model.*

**MEASUREMENT AND DATA (3.MD)**

**Previous**

**2016/2017**

**Measurement and Data**

**3.MD**

**Strand: MEASUREMENT AND DATA (3.MD)**

**Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects 3.MD.A**

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects

1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).<sup>6</sup> Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.<sup>7</sup>

### **Represent and interpret data 3.MD.B**

3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*
4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

### **Geometric measurement: understand concepts of area and relate area to multiplication and to addition 3.MD.C**

5. Recognize area as an attribute of plane

**(Standards 3.MD.1-2).** Represent and interpret data **(Standards 3.MD.3-4).** Understand concepts of area and relate area to multiplication and addition **(Standards 3.MD.5-7).** Recognize perimeter as an attribute of plane figures and distinguish between linear and area measures **(Standard 3.MD.8).**

**Standard 3.MD.1** Tell and write time to the nearest minute and measure time intervals in minutes. *Solve word problems involving addition and subtraction of time intervals in minutes, for example, by representing the problem on a number line diagram.*

**Standard 3.MD.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), milliliters (ml), and liters (l). (Excludes compound units such as cubic centimeters [cc or cm<sup>3</sup>] and finding the geometric volume of a container.) *Add, subtract, multiply, or divide to solve one-step word problems involving masses of objects or volumes of liquids that are given in the same units, for example, by using drawings (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems.)*

**Standard 3.MD.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent five pets.*

**Standard 3.MD.4** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot where the horizontal scale is marked off in appropriate units—whole number, halves, or quarters.

**Standard 3.MD.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.

figures and understand concepts of area measurement.

- a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
- b. A plane figure which can be covered without gaps or overlaps by  $n$  unit squares is said to have an area of  $n$  square units.

6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

7. Relate area to the operations of multiplication and addition.

- a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side length
- b. Multiply side lengths to find areas of rectangles with whole- number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths  $a$  and  $b + c$  is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.
- d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying

- a. A square with side length one unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
- b. A plane figure which can be covered without gaps or overlaps by  $n$  unit squares is said to have an area of  $n$  square units.

**Standard 3.MD.6** Measure area by counting unit squares (square centimeters, square meters, square inches, square feet, and improvised units).

**Standard 3.MD.7** Relate area to the operations of multiplication and addition (refer to 3.OA.5).

- a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
- b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths  $a$  and  $b + c$  is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.
- d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.

**Standard 3.MD.8** Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

this technique to solve real world problems.  
**Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures 3.MD.D**

8. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

**GEOMETRY**

**Previous**

**2016/2017**

**Geometry** **3.G**

**Reason with shapes and their attributes 3.G**

1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*

**Strand: GEOMETRY (3.G)**

Reason with shapes and their attributes (**Standards 3.G.1-2**).

**Standard 3.G.1** Understand that shapes in different categories (*for example, rhombuses, rectangles, and others*) may share attributes (*for example, having four sides*), and that the shared attributes can define a larger category (*for example, quadrilaterals*). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

**Standard 3.G.2** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into four parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*

# Utah Core Standards for Mathematics Progressions

	Kindergarten	1 <sup>st</sup> Grade
Counting and Cardinality	<ul style="list-style-type: none"> <li>• Count to 100 by ones and tens</li> <li>• Represent and write numbers for 0 - 20</li> <li>• Count to tell the number of objects</li> <li>• Compare numbers; greater than, less than, equal</li> <li>• Compare written numerals between 1 and 10</li> </ul>	
Operations and Algebraic Thinking	<ul style="list-style-type: none"> <li>• Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from               <ul style="list-style-type: none"> <li>○ Represent addition and subtraction</li> <li>○ Solve addition and subtraction word problems within 10</li> <li>○ Decompose numbers less than or equal to 10</li> <li>○ For any number from 1 to 9, find the number that makes 10 when add to the given number</li> <li>○ Fluently add and subtract within 5</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Represent and solve problems involving addition and subtraction within 20</li> <li>• Understand and apply properties of operations and the relationship between addition and subtraction               <ul style="list-style-type: none"> <li>○ Understand subtraction as an unknown-addend problem</li> </ul> </li> <li>• Relate addition and subtraction with 20 to counting</li> <li>• Add and subtract within 20</li> <li>• Understand the meaning of the equal sign</li> <li>• Work with addition and subtraction equations</li> </ul>
Numbers and Operations in Base Ten	<ul style="list-style-type: none"> <li>• Work with numbers 11-19 to gain foundation for place value               <ul style="list-style-type: none"> <li>○ Compose and decompose numbers</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Read, write, count and represent to 120</li> <li>• Understand place value of tens and ones</li> <li>• Compare two-digit numbers based on tens and ones</li> <li>• Use place value understanding and properties of operations to add and subtract               <ul style="list-style-type: none"> <li>○ Add within 100</li> <li>○ Mentally find 10 more or 10 less with two-digit numbers</li> <li>○ Subtract multiples of 10 in the range of 10 -90 from multiples of 10 in the range of 10-90</li> </ul> </li> </ul>
Measurement and Data	<ul style="list-style-type: none"> <li>• Describe and compare measurable attributes such as length and weight</li> <li>• Directly compare two objects with the same measurable attribute in common and describe the difference</li> <li>• Classify objects and count the numbers of objects in categories</li> </ul>	<ul style="list-style-type: none"> <li>• Measure lengths indirectly and by iterating lengths units</li> <li>• Tell and write time in hours and half-hours using analog and digital clocks</li> <li>• Organize, represent and interpret data up to three categories</li> <li>• Identify and compare the values of pennies, nickels, dimes and quarters</li> </ul>
Geometry	<ul style="list-style-type: none"> <li>• Identify, name and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres)</li> <li>• Identify shapes as two-dimensional or three-dimensional</li> <li>• Analyze, compare, create and compose shapes</li> </ul>	<ul style="list-style-type: none"> <li>• Reason with shapes and their attributes               <ul style="list-style-type: none"> <li>○ Distinguish between defining vs. non-defining attributes</li> <li>○ Compose two-dimensional or three-dimensional shapes to compose and create shapes</li> <li>○ Partition circles and rectangles into two and four equal shares</li> </ul> </li> </ul>

## Utah Core Standards for Mathematics Progressions

	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade
Operations and Algebraic Thinking	<ul style="list-style-type: none"> <li>• Represent and solve one- and two-step word problems involving addition and subtraction within 100</li> <li>• Fluently add and subtract within 20 using mental strategies</li> <li>• Work with equal groups of objects to gain foundations for multiplication</li> <li>• Use addition to find the total number of objects in rectangular arrays with up to 5 rows and up to 5 columns</li> </ul>	<ul style="list-style-type: none"> <li>• Represent and solve problems involving multiplication and division within 100</li> <li>• Understand properties of multiplication and the relationship between multiplication and division</li> <li>• Multiply and divide within 100</li> <li>• Solve two-step word problems involving the four operations and identify and explain patterns in arithmetic</li> </ul>
Numbers and Operations in Base Ten	<ul style="list-style-type: none"> <li>• Use place value understanding and properties of operations to add and subtract within 100                             <ul style="list-style-type: none"> <li>○ Count, read and write within 1000</li> <li>○ Compare three-digit numbers using symbols</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Use place value understanding and properties of operations to perform multi-digit arithmetic                             <ul style="list-style-type: none"> <li>○ Round whole numbers to nearest 10 or 100</li> <li>○ Fluently add and subtract within 1000</li> <li>○ Multiply one-digit whole numbers by multiples of 10 in range 10-90</li> </ul> </li> </ul>
Numbers and Operations- Fractions		<ul style="list-style-type: none"> <li>• Develop understanding of fractions as numbers with denominators 2, 3, 4, 6, 8 using number lines</li> <li>• Explain equivalence of fractions and compare by reasoning about their size</li> </ul>
Measurement and Data	<ul style="list-style-type: none"> <li>• Measure lengths of an object by selecting and using appropriate tools in standard units.</li> <li>• Measure and estimate lengths using units of inches, feet centimeters and meters</li> <li>• Measure to determine how much longer</li> <li>• Relate addition and subtraction to length within 100</li> <li>• Represent whole numbers as distance from 0 on the number line</li> <li>• Work with time on digital and analog clocks to the nearest 5 minutes</li> <li>• Solve word problems involving money</li> <li>• Represent and interpret data by measuring objects and making repeated measurements of the same object</li> <li>• Represent and interpret data by drawing a picture graph and a bar graph to represent a data set up to four categories</li> </ul>	<ul style="list-style-type: none"> <li>• Solve problems involving measurement and estimation of intervals of time to the nearest minute</li> <li>• Solve problems involving measurement and estimation of liquid volumes and masses of objects using grams, kilograms and liters</li> <li>• Represent and interpret data using scaled picture and bar graphs</li> <li>• Generate measurement data by measuring lengths to halves and fourths</li> <li>• Geometric measurement: Understand concepts of area and relate area to multiplication and to addition</li> <li>• Geometric measurement: Recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.</li> </ul>
Geometry	<ul style="list-style-type: none"> <li>• Recognize and draw shapes having specified attributes</li> <li>• Partition a rectangle into rows and columns</li> <li>• Partition circles and rectangles into two, three, or four equal shares</li> </ul>	<ul style="list-style-type: none"> <li>• Understand that shapes in different categories may share attributes</li> <li>• Partition shapes into parts with equal areas</li> </ul>

# Utah Core Standards for Mathematics Progressions

	4 <sup>th</sup> Grade	5 <sup>th</sup> Grade
Operations and Algebraic Thinking	<ul style="list-style-type: none"> <li>• Use the four operations with whole numbers to solve word problems                             <ul style="list-style-type: none"> <li>○ Interpret a multiplication equation as a comparison</li> <li>○ Involve multiplicative comparisons</li> <li>○ Solve multistep word problems using whole numbers with whole number answers</li> </ul> </li> <li>• Gain familiarity with factors and multiples in the range 1-100</li> <li>• Generate and analyze patterns that follow a given rule</li> </ul>	<ul style="list-style-type: none"> <li>• Write and interpret numerical expressions                             <ul style="list-style-type: none"> <li>○ Use parenthesis, brackets, or braces in numerical expressions and evaluate expression with these symbols</li> <li>○ Write simple expressions and interpret numerical expressions without evaluating them</li> </ul> </li> <li>• Analyze patterns and relationships                             <ul style="list-style-type: none"> <li>○ Generate two numerical patterns using two given rules</li> <li>○ Form ordered pairs</li> </ul> </li> </ul>
Numbers and Operations in Base Ten	<ul style="list-style-type: none"> <li>• Generalize place value understanding for multi-digit whole numbers                             <ul style="list-style-type: none"> <li>○ Read, write, compare and expand multi-digit whole numbers</li> <li>○ Round multi-digit numbers to any place</li> </ul> </li> <li>• Fluently add and subtract multi-digit whole numbers using the</li> <li>• Use place value understanding and properties of operations to perform multi-digit multiplication                             <ul style="list-style-type: none"> <li>○ Multiply up to four digits by a one-digit number</li> <li>○ Multiply two two-digit numbers using strategies and properties (illustrate and explain the calculations using equations, rectangular arrays and area models)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Understand the place value system                             <ul style="list-style-type: none"> <li>○ Recognize a multi-digit number in the one place represents 10 times as much as it represents in the place to its right and 1/10 to its left</li> <li>○ Explain patterns when multiplying by zero and explain patterns when a decimal is multiplied or divided</li> <li>○ Use whole-number exponents to denote powers of 10</li> <li>○ Read, write and compare decimals to thousandths</li> <li>○ Round to any place</li> <li>○ Fluently multiply multi-digit whole numbers</li> </ul> </li> <li>• Perform operations with multi-digit whole numbers and with decimal to hundredths                             <ul style="list-style-type: none"> <li>○ Fluently multiply multi-digit whole numbers</li> <li>○ Find whole-number quotients of whole numbers up to four-digit dividends (illustrate and explain the calculations using equations, rectangular arrays and area models)</li> <li>○ Add, subtract, multiply, and divide decimals to hundredths</li> </ul> </li> </ul>
Numbers and Operations-Fractions	<ul style="list-style-type: none"> <li>• Extend understanding of fraction equivalence and ordering with denominators 2,3,4,5,6,8,10,12,10                             <ul style="list-style-type: none"> <li>○ Explain and generate equivalent fractions using visual models</li> <li>○ Compare with justification two fractions with different denominators and numerators and use the symbols <math>&gt;</math>, <math>=</math>, <math>&lt;</math>.</li> </ul> </li> <li>• Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers                             <ul style="list-style-type: none"> <li>○ Understand addition and subtraction of fractions as joining and separating parts referring to the same whole</li> <li>○ Decompose a fraction into a sum of fractions with same denominator</li> <li>○ Add and subtract mixed numbers with like denominators</li> <li>○ Solve word problems involving addition and subtraction of fractions having like denominators</li> <li>○ Understand a fraction <math>a/b</math> as a multiple of <math>1/b</math> and use this</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Use equivalent fractions as a strategy to add and subtract fractions                             <ul style="list-style-type: none"> <li>○ Add and subtract fractions with unlike denominators</li> <li>○ Solve word problems involving addition and subtraction of fractions with unlike denominators</li> </ul> </li> <li>• Apply and extend previous understandings of multiplication and division to multiply and divide fractions                             <ul style="list-style-type: none"> <li>○ Interpret a fraction as division of the numerator by the denominator</li> <li>○ Solve word problems involving division of whole numbers</li> <li>○ Find the are of a rectangle with fractional side lengths by tiling it with unit squares</li> <li>○ Multiply fractional side lengths to find area of rectangle to get a rectangular areas</li> <li>○ Interpret multiplication as scaling</li> <li>○ Solve real world problems involving multiplication of</li> </ul> </li> </ul>

# Utah Core Standards for Mathematics Progressions

	<ul style="list-style-type: none"> <li>○ understanding to multiply a fraction by a whole number</li> <li>○ Solve word problems involving multiplication of a fraction by a whole number</li> <li>• Understand decimal notation for fractions and compare decimal fractions             <ul style="list-style-type: none"> <li>○ Express a fraction with denominator 10 as an equivalent fraction with denominator 100</li> <li>○ Use decimal notation for fractions with denominators 10 or 100</li> <li>○ Compare two decimals to hundredths by reasoning about their size</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ fractions and mixed numbers</li> <li>○ Divide a unit fraction by a whole number and whole numbers by unit fractions</li> </ul>
Measurement and Data	<ul style="list-style-type: none"> <li>• Solve problems involving measurement and conversion of measurements form a larger unit to a smaller unit             <ul style="list-style-type: none"> <li>○ Know relative sizes of measurement units within one system of units including km, m, cm; kg, g, oz; l, ml; hr, min, sec. and express measurement equivalents in terms of a smaller unit, recording measurement in a two-column table</li> <li>○ Use the four operations to solve problems involving distances, intervals of time, liquid volumes, masses of objects, and money including problems involving simple fractions or decimals</li> <li>○ Represent measurement quantities using diagrams such as number line diagrams such as number line diagrams that feature a measurement scale</li> <li>○ Apply the area and perimeter formulas in real world problems</li> <li>○ Make a line plot to display data set of measurements in fractions of a unit (<math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{8}</math>)</li> </ul> </li> <li>• Represent and interpret data by making a line plot to display data set of measurements in fractions of a unit (<math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{8}</math>)</li> <li>• Understand concepts of angle and measure angles             <ul style="list-style-type: none"> <li>○ As angle is measured with reference to a circle</li> <li>○ An angle that turns through <math>n</math> one-degree is said to have an angle measure of <math>n</math> degrees</li> <li>○ Measure and sketch angles in whole-number degrees using a protractor</li> <li>○ Recognize angles measures as additive</li> <li>○ Solve addition and subtraction problems to find unknown angles</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Convert like measurement units within a given measurement system</li> <li>• Represent and Interpret data             <ul style="list-style-type: none"> <li>○ Make a line plot to display a data set of measurements in fractions of a unit (<math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{8}</math>)</li> <li>○ Use operations on fractions for this grade to solve problems from information on the line plot</li> </ul> </li> <li>• Recognize volume as an attribute of solid figures and understand concepts of volume measurement.             <ul style="list-style-type: none"> <li>○ Measure volume by counting unit cubes</li> </ul> </li> <li>• Relate volume to the operations of multiplication and addition and solve real world problems involving volume             <ul style="list-style-type: none"> <li>○ Find the volume of a right triangle by packing it with unit cubes</li> <li>○ Apply formulas <math>V=l \times w \times h</math> and <math>V= b \times h</math></li> <li>○ Recognize volume as additive</li> <li>○ Find volume of solid figures composed of two non-overlapping right rectangular prisms</li> </ul> </li> </ul>
Geometry	<ul style="list-style-type: none"> <li>• Draw points, lines, line segments, ray, angles (right, acute, obtuse), and perpendicular and parallel lines in two-dimensional figures</li> <li>• Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.</li> <li>• Recognize right triangles as a category and identify right triangles</li> <li>• Recognize a line of symmetry for a two-dimensional figure and identify lines of symmetry</li> <li>• Recognize two-dimensional figures and draw lines of symmetry</li> </ul>	<ul style="list-style-type: none"> <li>• Graph points on the coordinate plane to solve real-world and mathematical problems in the first quadrant</li> <li>• Classify two-dimensional figures into categories based on their properties             <ul style="list-style-type: none"> <li>○ Understand that attributes belonging to a category of two-dimensional figures belong to all subcategories</li> <li>○ Classify two-dimensional figures in a hierarchy based on properties</li> </ul> </li> </ul>

# CCSS WHERE TO FOCUS MATHEMATICS

An important subset of the major work in grades K–8 is the progression that leads toward middle school algebra.

K	1	2	3	4	5	6	7	8
Know number names and the count sequence	Represent and solve problems involving addition and subtraction	Represent and solve problems involving addition and subtraction	Represent & solve problems involving multiplication and division	Use the four operations with whole numbers to solve problems	Understand the place value system	Apply and extend previous understandings of multiplication and division to divide fractions by fractions	Apply and extend previous understanding of operations with fractions to add, subtract, multiply, and divide rational numbers	Work with radical and integer exponents
Count to tell the number of objects	Understand and apply properties of operations and the relationship between addition and subtraction	Add and subtract within 20	Understand properties of multiplication and the relationship between multiplication and division	Generalize place value understanding for multi-digit whole numbers	Perform operations with multi-digit whole numbers and decimals to hundredths	Apply and extend previous understandings of multiplication and division to divide fractions by fractions	Analyze proportional relationships and use them to solve real-world and mathematical problems	Understand the connections between proportional relationships, lines, and linear equations**
Compare numbers	Use place value understanding and properties of operations to add and subtract	Use place value understanding and properties of operations to add and subtract	Multiply & divide within 100	Use place value understanding and properties of operations to perform multidigit arithmetic	Use equivalent fractions as a strategy to add and subtract fractions	Apply and extend previous understandings of numbers to the system of rational numbers	Analyze proportional relationships and use them to solve real-world and mathematical problems	Analyze and solve linear equations and pairs of simultaneous linear equations
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from	Add and subtract within 20	Measure and estimate lengths in standard units	Solve problems involving the four operations, and identify & explain patterns in arithmetic	Extend understanding of fraction equivalence and ordering	Apply and extend previous understandings of multiplication and division to multiply and divide fractions	Understand ratio concepts and use ratio reasoning to solve problems	Use properties of operations to generate equivalent expressions	Define, evaluate, and compare functions
Work with numbers 11-19 to gain foundations for place value	Work with addition and subtraction equations	Relate addition and subtraction to length	Develop understanding of fractions as numbers	Build fractions from unit fractions by applying and extending previous understandings of operations	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition	Apply and extend previous understandings of arithmetic to algebraic expressions	Solve real-life and mathematical problems using numerical and algebraic expressions and equations	Use functions to model relationships between quantities
	Extend the counting sequence		Solve problems involving measurement and estimation of intervals of time, liquid volumes, & masses of objects	Understand decimal notation for fractions, and compare decimal fractions	Graph points in the coordinate plane to solve real-world and mathematical problems*	Reason about and solve one-variable equations and inequalities		
	Understand place value		Geometric measurement: understand concepts of area and relate area to multiplication and to addition			Represent and analyze quantitative relationships between dependent and independent variables		
	Use place value understanding and properties of operations to add and subtract							
	Measure lengths indirectly and by iterating length units							

\* Indicates a cluster that is well thought of as a part of a student's progress to algebra, but that is currently not designated as major by the assessment consortia in their draft materials. Apart from the one asterisked exception, the clusters listed here are a subset of those designated as major in the assessment consortia's draft documents.

\*\* Depends on similarity ideas from geometry to show that slope can be defined and then used to show that a linear equation has a graph which is a straight line and conversely.

# The Utah Core Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important processes and proficiencies with longstanding importance in mathematics education.

1. **Make sense of problems and persevere in solving them.**
2. **Reason abstractly and quantitatively.**
3. **Construct viable arguments and critique the reasoning of others.**
4. **Model with mathematics.**
5. **Use appropriate tools strategically.**
6. **Attend to precision.**
7. **Look for and make use of structure.**
8. **Look for and express regularity in repeated reasoning.**

## Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

“The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word “understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices” (CCSS, 2010).

Canyons School District elementary math maps are created and published by the CSD Instructional Supports Department

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## Common Core State Standards Standards for Mathematical Practice Questions for Teachers to Ask

Make sense of problems and persevere in solving them	Reason abstractly and quantitatively	Construct viable arguments and critique the reasoning of others	Model with mathematics
<p><i>Teachers ask:</i></p> <ul style="list-style-type: none"> <li>• What is this problem asking?</li> <li>• How could you start this problem?</li> <li>• How could you make this problem easier to solve?</li> <li>• How is ___'s way of solving the problem like/different from yours?</li> <li>• Does your plan make sense? Why or why not?</li> <li>• What tools/manipulatives might help you?</li> <li>• What are you having trouble with?</li> <li>• How can you check this?</li> </ul>	<p><i>Teachers ask:</i></p> <ul style="list-style-type: none"> <li>• What does the number ____ represent in the problem?</li> <li>• How can you represent the problem with symbols and numbers?</li> <li>• Create a representation of the problem.</li> </ul>	<p><i>Teachers ask:</i></p> <ul style="list-style-type: none"> <li>• How is your answer different than ____'s?</li> <li>• How can you prove that your answer is correct?</li> <li>• What math language will help you prove your answer?</li> <li>• What examples could prove or disprove your argument?</li> <li>• What do you think about ____'s argument</li> <li>• What is wrong with ____'s thinking?</li> <li>• What questions do you have for ____?</li> </ul> <p><i>*it is important that the teacher poses tasks that involve arguments or critiques</i></p>	<p><i>Teachers ask:</i></p> <ul style="list-style-type: none"> <li>• Write a number sentence to describe this situation</li> <li>• What do you already know about solving this problem?</li> <li>• What connections do you see?</li> <li>• Why do the results make sense?</li> <li>• Is this working or do you need to change your model?</li> </ul> <p><i>*It is important that the teacher poses tasks that involve real world situations</i></p>
Use appropriate tools strategically	Attend to precision	Look for and make use of structure	Look for and express regularity in repeated reasoning
<p><i>Teachers ask:</i></p> <ul style="list-style-type: none"> <li>• How could you use manipulatives or a drawing to show your thinking?</li> <li>• Which tool/manipulative would be best for this problem?</li> <li>• What other resources could help you solve this problem?</li> </ul>	<p><i>Teachers ask:</i></p> <ul style="list-style-type: none"> <li>• What does the word ____ mean?</li> <li>• Explain what you did to solve the problem.</li> <li>• Compare your answer to ____'s answer</li> <li>• What labels could you use?</li> <li>• How do you know your answer is accurate?</li> <li>• Did you use the most efficient way to solve the problem?</li> </ul>	<p><i>Teachers ask:</i></p> <ul style="list-style-type: none"> <li>• Why does this happen?</li> <li>• How is ____ related to ____?</li> <li>• Why is this important to the problem?</li> <li>• What do you know about ____ that you can apply to this situation?</li> <li>• How can you use what you know to explain why this works?</li> <li>• What patterns do you see?</li> </ul> <p><i>*deductive reasoning (moving from general to specific)</i></p>	<p><i>Teachers ask:</i></p> <ul style="list-style-type: none"> <li>• What generalizations can you make?</li> <li>• Can you find a shortcut to solve the problem? How would your shortcut make the problem easier?</li> <li>• How could this problem help you solve another problem?</li> </ul> <p><i>*inductive reasoning (moving from specific to general)</i></p>

## Grades 2-5 CSD Math Block 90 Minutes Daily

Numeracy Component	Range of Time	Focus of Instruction	Instructional Materials		
			Hard Copy	Digital	
<b>Check for Understanding (Formative Assessment)</b> Monitor progress towards mastery of grade-level core standard	Review	5-10 minutes	<ul style="list-style-type: none"> <li>Focused Review                             <ul style="list-style-type: none"> <li>Identified skill deficit that have been identified through formative assessment to review (CFA, exit ticket, whiteboards, etc.)</li> <li>Cumulative review of previously taught skills and standards</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Daily Common Core Review</li> <li>Today's Challenge</li> <li>Review What you Know</li> </ul>	<ul style="list-style-type: none"> <li>Today's Challenge</li> </ul>
	Vocabulary	3-5 minutes	<ul style="list-style-type: none"> <li>Teach Appropriate Vocabulary using the Systematic Vocabulary Routine</li> </ul>	<ul style="list-style-type: none"> <li>Systematic Vocabulary Routine</li> <li>Vocabulary Review Activity</li> <li>My Word Cards</li> </ul>	
	Lesson Objectives	1-3 Minutes	<ul style="list-style-type: none"> <li>Content Objectives- What are students going to learn?</li> <li>Language Objectives- How will students demonstrate learning through reading, writing, speaking, or listening?</li> </ul>	<ul style="list-style-type: none"> <li>Lesson objectives are posted and referred to throughout the lesson</li> <li>Objectives include both content and math practice standards</li> </ul>	
	Concept/Skill Development (Acquisition, Automaticity & Application)	30-45 minutes	<p>Develop the Concept:</p> <ul style="list-style-type: none"> <li>Acquisition: Students develop understanding of skills through the CRA Model                             <ul style="list-style-type: none"> <li><u>Concrete</u>: Hands-on (manipulatives)</li> <li><u>Representational</u>: Visual (pictures or video)</li> <li><u>Abstract</u>: Symbolic (numbers or algorithm)</li> </ul> </li> <li>Automaticity: Students perform skills flexibly, accurately, and efficiently</li> <li>Application: Students apply skills to solve problems in new contexts</li> </ul>	<ul style="list-style-type: none"> <li>Problem-Based Interactive Learning</li> <li>Visual Learning Bridge                             <ul style="list-style-type: none"> <li>(K-2) Do You Understand? Show Me!</li> <li>3-5) Convince Me!</li> <li>Guided Practice</li> <li>Independent Practice (Quick Check)</li> <li><b>Project-based Learning</b></li> <li><b>M<sup>2</sup> or M<sup>3</sup></b></li> <li><b>Extending the Challenge (Sheffield) A&amp;B</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Solve and Share (Problem Based Learning)</li> <li>Visual Learning Animation Plus</li> <li>Convince Me! (3-5)</li> <li>Do You Understand? (K-2)</li> <li>Student and Teacher eTexts</li> <li>Listen and Look Videos (teacher)</li> <li><b>Math Exemplars</b></li> </ul>
Skill-Based Instruction: Pre-teach, Review, Reinforce & Extend	30-45 minutes	<ul style="list-style-type: none"> <li>Pre-teach upcoming concepts to groups and individual students that need support/scaffolding</li> <li>Students practice concepts independently as appropriate</li> <li>Reteach with skill-based groups who need extra support/scaffolding</li> <li><b>Provide extension opportunities for students who have shown mastery of the concept/skill</b></li> <li>Build Fluency with math facts and computation</li> </ul>	<ul style="list-style-type: none"> <li>Intervention Activity</li> <li>ON-level and Advanced Activity Centers</li> <li>Reteach</li> <li>Leveled Assignment</li> <li>Differentiated Center materials</li> <li>Close/Assess and Differentiate</li> <li><b>Extended Learning Opportunities</b></li> </ul>	<ul style="list-style-type: none"> <li>Practice Buddy</li> <li>Reflex (grades 2-5)</li> <li></li> </ul>	

## Skill-Based Instruction: Assisting All Students to Succeed in Mathematics

Skill-Based Instruction is additional support given to students during the math block by the teacher aimed at building targeted math skills. This is in addition to core instruction given to entire class.

**enVision 2.0 supports skill-based instruction with the following resources:**

- **Intervention Activity** (Assess and Differentiate section at the end of each lesson) Students needing intervention get focused instruction from the teacher.
- **Math Diagnosis and Intervention System 2.0 (MDIS)** Provides additional lessons to focus intervention for students.
- **Item Analysis for Diagnosis and Intervention (RtI)** Provided with assessments to support analyzing gaps in mastery of standards
- **Reteaching** Problem sets at the end of each topic that connect to the math standards

<i>Skill-based instruction is explicit &amp; systematic (I do, we do, y'all do, and you do)</i>	<i>Examples</i>
Provide additional <b>concrete models</b> to build understanding <b>with accompanying teacher think-alouds</b>	<ul style="list-style-type: none"> <li>• Use manipulatives such as place value blocks, Unifix cubes, and fraction circles.</li> <li>• Use visual representations such as number lines, arrays, and bar diagrams.</li> <li>• Teacher Think-Aloud: <i>"When I have fourteen cubes, I can create one ten stick and I have four cubes left over to make 14."</i></li> </ul>
Provide students opportunities to understand the <b>relationship between the abstract symbols and visual representations.</b>	<ul style="list-style-type: none"> <li>• The = sign means that we have the same amount on both sides of the equal sign.  <div style="text-align: center;"> <math>\odot \odot \odot = \odot \odot \odot</math> </div> </li> </ul>
Provide numerous <b>examples with accompanying teacher think-alouds</b>	<p>Skill: Addition of Fractions Examples:</p> <ul style="list-style-type: none"> <li>• <math>\frac{1}{2} + \frac{1}{4} =</math></li> <li>• <math>\frac{1}{4} + \frac{1}{4} =</math></li> </ul> <p>Teacher Think-Aloud: <i>"We know that when we add fractions with common denominators the denominator will stay the same because we still have the same size piece. So when I add <math>\frac{1}{4} + \frac{1}{4}</math> I have <math>\frac{2}{4}</math> because I have 2, <math>\frac{1}{4}</math> pieces."</i></p>
Provide <b>students</b> with opportunities to <b>solve problems</b> in a group <b>and communicate problem-solving strategies.</b>	<ul style="list-style-type: none"> <li>• Students effectively communicate their strategies to <i>one another</i> using appropriate mathematical vocabulary.</li> <li>• Students effectively communicate their strategies to the <i>teacher</i> using appropriate mathematical vocabulary.</li> </ul>
<b>Provide</b> students ongoing, <b>specific feedback</b> that clarifies what students did correctly or what they need to improve.	<ul style="list-style-type: none"> <li>• Student correctly answers that <math>5 + 3 = 8</math>. Teacher says, "Yes, that is correct. The total of five and three is eight."</li> <li>• Student incorrectly identifies that <math>5 + 3 = 7</math>. Teacher says, "Five plus three is not seven. Pull out your unifix cubes and show me the problem with your cubes." <i>Student counts the cubes and answers that <math>5 + 3 = 8</math>. "That is correct. The total of five and three is eight. Thank you for trying again."</i></li> </ul>
Provide <b>frequent cumulative review</b> to ensure that knowledge is maintained over time.	<p>Skill: Adding Decimals</p> <ul style="list-style-type: none"> <li>• Teacher quickly reviews multi-digit addition with an emphasis on place value.</li> </ul>
Provide opportunity for <b>students to apply the skill in word problems.</b>	<p>Skill: Area - finding the area of a rectangle given the side lengths.</p> <ul style="list-style-type: none"> <li>• Students create word problems using the area of squares for example a student creates the following problem, <i>"Bobbie is tiling the kitchen floor with square foot tiles. The floor has side lengths of 10 feet and</i></li> </ul>

12 feet. How many tiles are needed to cover the floor?"

**During skill-based instruction, students not with the teacher could engage in the following math center activities:**

Center Options	Description
Center Activities from enVision 2.0	<ul style="list-style-type: none"> <li>At the end of each enVision2.0 lesson in the Assess and Differentiate section are the On-Level and Advanced Center Activities which include: Center Games, Problem-Solving Reading Mat, Math and Science Activity</li> </ul>
Digital Centers from enVision 2.0	<ul style="list-style-type: none"> <li>The following digital components from enVision 2.0 could be utilized by students during math centers: Today's Challenge, Game from the Game Center, Digital Math Tool Activities, Another Look video, Bounce Pages, Practice Buddy (grades 3-5)</li> </ul>
Technology	<ul style="list-style-type: none"> <li>Reflex- Students work independently in grades 2-5 to build fluency of basic math facts</li> <li>Students use appropriate technology to deepen their understanding of math.</li> </ul>
Fluency	<ul style="list-style-type: none"> <li>Fluency is built on any skill that has been taught throughout the year (e.g., <i>previous instruction focused on fact families and pairs of students work together and to create fact families using number cards, including numbers 0-9. The student created fact families would be recorded on a piece of paper or graphic organizer.</i>)</li> </ul>
Four-Square Math	<ul style="list-style-type: none"> <li>Students are given a four square graphic organizer with a previously learned vocabulary word or concept in the middle of the graphic. The four areas to write could include any of the following: three words or pictures that help you remember the word, characteristics, non-example, example, a statement that is true about the word, three words related to the word, or a conclusion statement.</li> <li>Students write a math practice standard in the middle of the four square and could add any of the following to the squares: characteristics of the MP, list what students do when they engage in the MP, write questions that you would ask your partner when you are focusing on the MP, six word summary of the MP, etc.</li> </ul>
Literature in Math	<ul style="list-style-type: none"> <li>Students read or look at a book that relates to the current or past math concept. The teacher provides questions or sentence starters for the group at the center to support discussion after reading.</li> </ul>
Manipulatives	<ul style="list-style-type: none"> <li>Students manipulate math tools to complete a grade level task.</li> </ul>
Math Journals	<ul style="list-style-type: none"> <li>Students write or draw in math journals to summarize their learning.</li> <li>Students review their notes and star key ideas.</li> </ul>
Problem-Solving using DOK 3	<ul style="list-style-type: none"> <li>Students in small groups are presented with an application problem that requires reasoning, problem solving, and justification of their thought process by using words, pictures or equations.</li> <li>Tasks are available at the following websites:  <a href="http://www.insidemathematics.org">http://www.insidemathematics.org</a>  <a href="https://www.illustrativemathematics.org">https://www.illustrativemathematics.org</a>  <a href="http://illuminations.nctm.org">http://illuminations.nctm.org</a> </li> </ul>
Vocabulary	<ul style="list-style-type: none"> <li>Students match previously taught vocabulary words with illustrations. After finding a match the student would define the word.</li> <li>Students do a word sort with the enVision vocabulary cards.</li> <li>Students find similarities and differences in words using a Venn Diagram.</li> </ul>

## SALTA 3<sup>rd</sup> Grade Year-at-a-Glance 2016-2017

Flexible Pacing	Strands/Standards	enVision 2.0 Math Topic Titles	TOPICS	District Assessment Dates
<b>Aug 24-Nov-11</b> 52 Days	<b>Mathematical Practices: 1, 4, 5, 8</b> <b>Operations and Algebraic Thinking: Standards 1-6 (3.OA.A &amp; 3.OA.B)</b>	• <b>Understand Multiplication and Division of Whole Numbers (7 lessons)</b>	Topic 1	Due by November 11 <b>District-Wide Standards-Based Benchmark #1</b>
		• <b>Multiplication Facts: Use Patterns (6 lessons)</b>	Topic 2	
		• <b>Apply Properties: Multiplication Facts for 3, 4, 6, 7, 8 (8 lessons)</b>	Topic 3	
		• <b>Use Multiplication to Divide: Division Facts (9 lessons)</b>	Topic 4	
<p><b>Math Exemplars-</b> Utilize both Summative Assessment Task and Instructional Tasks/Formative Assessments</p> <p style="margin-left: 20px;"><b>Operations and Algebraic Thinking</b></p> <ul style="list-style-type: none"> <li>• 3.OA.A.1, 2, &amp; 3</li> </ul> <p><b>M3 Awesome Algebra: Looking for Patterns and Generalizations</b></p>				
<b>Nov 14-Feb 3</b> 47 Days	<b>Mathematical Practices: 4, 6, 7</b> <b>Operations and Algebraic Thinking: Standard 7 (3.A.C)</b> <b>Measurement and Data: Standards 5-7 (3.MD.C)</b> <b>Measurement and Data: Standards 5-7 (3.MD.B)</b> <b>Numbers and Operations in Base 10: Standards 1-3 (3.NBT.A)</b>	• <b>Fluently Multiply and Divide Within 100 (8 lessons)</b>	Topic 5	Due by February 3 <b>District-Wide Standards-Based Benchmark #2</b>
		• <b>Connect Area to Multiplication and Addition (7 lessons)</b>	Topic 6	
		• <b>Represent and Interpret Data (5 lessons)</b>	Topic 7	
		• <b>Use Strategies and Properties to Add and Subtract (9 lessons)</b>	Topic 8	
<p><b>Math Exemplars-</b> Utilize both Summative Assessment Task and Instructional Tasks/Formative Assessments</p> <p style="margin-left: 20px;"><b>Number and Operations in Base Ten</b></p> <ul style="list-style-type: none"> <li>• 3.NBT.A1 &amp; 3</li> </ul> <p style="margin-left: 20px;"><b>Measurement and Data</b></p> <ul style="list-style-type: none"> <li>• 3.MD.B.3 and 4</li> <li>• 3.MD.C.5a, 5b</li> <li>• 3.MD.C.6</li> <li>• 3.MD.C.7a, 7b, 7c &amp; 7d</li> </ul> <p><b>M3 Digging for Data: The Search Within Research</b></p>				

<b>Feb 6 – Apr 14</b> 42 Days	<b>Mathematical Practices: 1, 3, 7</b> <b>Numbers &amp; Operations in Base 10: Standards 1-3 (3.NBT.A)</b>	• <b>Fluently Add and Subtract Within 1,000 (8 lessons)</b>	Topic 9	Due by April 14 District-Wide Standards-Based Benchmark #3
	<b>Operations and Algebraic Thinking: Standard 8-9 (3.OA.D)</b>	• <b>Multiply by Multiples of 10 (4 lessons)</b>	Topic 10	
	<b>Number and Operations in Fractions: Standards 1-3 (3.NF.A)</b>	• <b>Use Operations with Whole Numbers to Solve Problems (4 lessons)</b>	Topic 11	
		• <b>Understand Fractions as Numbers (8 lessons)</b>	Topic 12	

**Math Exemplars-** Utilize both Summative Assessment Task and Instructional Tasks/Formative Assessments

**Operations and Algebraic Thinking**

- 3.OA.D.8 & 9

**Number and Operations in Base Ten**

- 3.NBT.A.1 & 3

**Number and Operations - Fractions**

- 3.NF.A.1, 2a, 2b, 3a, 3b & 3d

**M3 Unraveling the Mystery of the Moli Stone: Place Value and Numeration**

<b>Apr 17 – June 6</b> 35 Days	<b>Mathematical Practices: 2, 3, 6</b> <b>Number and Operations in Fractions: Standards 1-3 (3.NF.A)</b>	• <b>Fraction Equivalence and Comparison (8 lessons)</b>	Topic 13	Due by June 6 District-Wide Standards-Based Benchmark #4
	<b>Measurement and Data Standards: 1-2 (3.MD.A)</b>	• <b>Solve Time, Capacity, and Mass Problems (9 lessons)</b>	Topic 14	
	<b>Geometry: Standards 1-2 (3.G.A)</b>	• <b>Attributes of Two-Dimensional Shapes (4 lessons)</b>	Topic 15	
	<b>Measurement and Data: Standard 8 (3.MD.D)</b>	• <b>Solve Perimeter Problems (6 lessons)</b>	Topic 16	

**Math Exemplars-** Utilize both Summative Assessment Task and Instructional Tasks/Formative Assessments

**Number and Operations – Fractions**

- 3.NF.A.1 & 3

**Measurement and Data**

- 3.MD.A.1
- 3.MD.D.8

**Geometry**

- 3.G.A.1 & 2

**M3 What's the Me in Measurement All About**

**OPERATIONS AND ALGEBRAIC THINKING (OA)**  
**Topic 1 - Understand Multiplication and Division of Whole Numbers**  
**Topic 2 - Multiplication Facts: Use Patterns**

<p><b>Report Card Learning Targets</b>  <b>I can....</b></p> <ul style="list-style-type: none"> <li>• Understand and represent multiplication</li> <li>• Understand and represent division</li> <li>• Solve two-step word problems using multiplication and division</li> </ul>		
<p><b>TOPICS 1 AND 2</b></p>		
<p><b>Coherence</b> <span style="float: right;">pp. 1C-1D</span></p>		
<p><b>Look back:</b>  <b>Grade 2-</b></p> <ul style="list-style-type: none"> <li>• Doubles</li> <li>• Work with Equal Groups</li> <li>• Skip Count</li> <li>• Number Line Representations</li> </ul>	<p><b>Topics 1 and 2:</b></p> <ul style="list-style-type: none"> <li>• Equal Groups</li> <li>• Skip Count</li> <li>• Diagrams</li> <li>• Patterns and Properties</li> </ul>	<p><b>Look Ahead:</b>  <b>Later in Grade 3-</b></p> <ul style="list-style-type: none"> <li>• Fact Fluency</li> <li>• Connect Area to Multiplication</li> <li>• Used Scaled Graphs</li> <li>• Multiples of 10</li> <li>• 2-Step Problems</li> <li>• Measurement Problems</li> </ul> <p><b>Grade 4-</b></p> <ul style="list-style-type: none"> <li>• Multiplication and Division with Greater Numbers</li> <li>• Fraction Multiplication</li> </ul>
<p><b>Rigor</b> <span style="float: right;">p. 1E</span></p>		
<p><b>Conceptual Understanding:</b></p> <ul style="list-style-type: none"> <li>• Equal-Group Interpretation of Multiplication and Division</li> <li>• Equal-Group Situation</li> <li>• Multiplication and Division Representations</li> <li>• Properties</li> </ul>	<p><b>Procedural Skill and Fluency:</b></p> <ul style="list-style-type: none"> <li>• Foundational Fact Fluency</li> </ul>	<p><b>Applications:</b></p> <ul style="list-style-type: none"> <li>• Multiplication and Division</li> </ul>

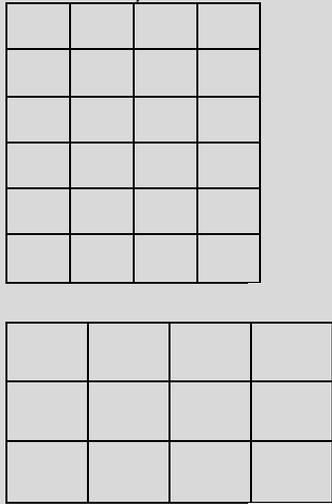
Focus	Strand: Mathematical Practice Standards #5 and #4	p. 1F
<p>3.MP.5 3.MP.4</p>	<p><b>5. Use appropriate tools strategically.</b> (Topic 1)            Consider the tools that are available when solving a mathematical problem, whether in a real-world or mathematical context. Choose tools that are relevant and useful to the problem at hand, such as drawings, diagrams, technologies, and physical objects and tools, as well as mathematical tools such as estimation or a particular strategy or algorithm.  <i>Third grade students consider how to use tools, such as counters and grid paper, to represent arrays.</i>            I can identify available tools.            I can think about correct tools to use without prompting.            I can use tools correctly and accurately.            I know when to use a particular tool.            I can decide if the results obtained using a tool make sense.</p> <p><b>4. Model with mathematics.</b> (Topic 2)            Identify the mathematical elements of a situation and create a mathematical model that shows the relationships among them. Identify important quantities in a contextual situation, use mathematical models to show the relationships of those quantities, analyze the relationships, and draw conclusions. Models may be verbal, contextual, visual, symbolic, or physical.  <i>Third grade students use the math that they have previously learned, such as expressions, equations, arrays, and bar diagrams, to represent problems involving multiplication or division.</i>            I can identify the correct prior knowledge that needs to be applied to solve a problem.            I can identify the hidden question(s) in multiple-step problems.            I can use numbers, symbols, and words to solve problems.            I can identify the operation(s) needed to solve a problem.            I can use estimation as appropriate.</p>	

Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<p><b>3.OA.1</b> <b>3.OA.2</b> <b>3.OA.3</b> <b>3.OA.4</b> <b>(3.OA.A)</b></p>	<p><b>Strand: Operations and Algebraic Thinking</b></p> <p>Third grade students represent and solve problems involving multiplication and division within 100.</p> <p><b>Standard 3.OA.1</b> Interpret products of whole numbers, such as interpret <math>5 \times 7</math> as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as <math>5 \times 7</math>.</i></p> <p><b>Standard 3.OA.2</b> Interpret whole-number quotients of whole numbers. <i>For example, interpret <math>56 \div 8</math> as the number of objects in each share when 56 objects are partitioned equally into eight shares (partitive), or as a number of shares when 56 objects are partitioned into equal shares of eight objects each (quotative).</i></p> <p><b>Standard 3.OA.3</b> Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. <i>For example, use drawings and equations with a symbol for the unknown number to represent the problem.</i></p> <p><b>Standard 3.OA.4</b> Determine the unknown whole number in a multiplication or division equation relating three whole numbers. <i>For example, determine the unknown number—product, factor, quotient, dividend, or divisor—that makes the equation true in each of the equations <math>8 \times ? = 48</math>, <math>5 = ? \div 3</math>, <math>6 \times 6 = ?</math>.</i></p>	<p><b>Topic 1: Understand Multiplication and Division of Whole Numbers</b> (pp. 11-1K)</p> <p><b>1-1</b> Multiplication as Repeated Addition (pp. 7-12)</p> <p><b>1-2</b> Multiplication on the Number Line (pp. 13-18)</p> <p><b>1-3</b> Arrays and Multiplication (pp. 19-24)</p> <p><b>1-4</b> The Commutative Property (pp. 25-30)</p> <p><b>1-5</b> Division as Sharing (pp. 31-36)</p> <p><b>1-6</b> Division as Repeated Subtraction (pp. 37-42)</p> <p><b>1-7 Math Practices and Problem Solving: Use Appropriate Tools</b> (pp. 43-48)</p> <p><b>Topic 2: Multiplication Facts: Use Patterns</b> (pp. 57A-57B)</p> <p><b>2-1</b> 2 and 5 as Factors (pp. 61-66)</p> <p><b>2-2</b> 9 as a Factor (pp. 67-72)</p> <p><b>2-3</b> Apply Properties: Multiply by 0 and 1 (pp. 73-78)</p> <p><b>2-4</b> Multiply by 10 (pp. 79-84)</p> <p><b>2-5</b> Multiplication Facts: 0, 1, 2, 5, 9 and 10 (pp. 85-90)</p> <p><b>2-6 Math Practices and Problem Solving: Model with Math</b> (pp. 91-96)</p>	<p><b>Topic 1:</b></p> <ul style="list-style-type: none"> <li>• equal groups</li> <li>• multiplication</li> <li>• factors</li> <li>• product</li> <li>• equation</li> <li>• unknown</li> <li>• number line</li> <li>• array</li> <li>• row</li> <li>• column</li> <li>• commutative (order) property of multiplication</li> <li>• division</li> </ul> <p><b>Topic 2:</b></p> <ul style="list-style-type: none"> <li>• multiples</li> <li>• identity (one) property of multiplication</li> <li>• zero property of multiplication</li> </ul>
	<p><b>Assessment Options:</b></p> <p><b>Topic 1 Assessment</b> - Understand Multiplication and Division of Whole Numbers (print or online) (pp. 53-54)</p> <p><b>Topic 1 Performance Assessment</b> - Understand Multiplication and Division of Whole Numbers</p>	<p><b>Topic 2 Assessment</b> – Multiplication Facts: Use Patterns (print or online) (pp. 101-102)</p> <p><b>Topic 2 Performance Assessment</b> – Multiplication Facts: Use Patterns</p>	

(pp. 55-56)

(pp. 103-104)

**Assessment Tasks - Topics 1 and 2**

	<b>Procedural Check</b>	<b>Application Task</b>
<b>3.OA.1</b>	<p>Write an expression and count the total number of boxes in each array.</p>  <p>(DOK 1)</p>	<p>Eggs come in cartons with either 2 rows or 3 rows. The carton with 2 rows has 12 eggs and the carton with 3 rows has 18 eggs. If each carton has the same number of eggs in each row, how many eggs are in each row? Use pictures and numbers to justify your answer. (DOK 3)</p> <p>Mia has nine bags with 2 toy animals in each bag. Sara says she has the same number of animals but she only has 6 bags. Could Sara be correct? Use pictures, words, and numbers to justify your answer. (DOK 3)</p>
<b>3.OA.2</b>	<p>Draw a picture for each problem.</p> <p>18 CD's in 9 packages 12 markers for 2 people 25 people in teams of 5 24 cupcakes in boxes of 4</p> <p>(DOK 2)</p>	<p>A class of 32 students was divided equally into teams for a relay race. Each relay team had 4 students. How many relay teams were there? Use words and pictures to justify your answer. (DOK 3)</p> <p>A teacher gave out 27 pencils to 9 students. Each student got the same number of pencils. How many pencils did each student get? Use words and pictures to justify your answer. (DOK 3)</p>

3.OA.3



Write an equation for each array.

(DOK 1)

Mrs. Kenning's class is making birdhouses. Each birdhouse needs 3 feet of wood. She has 27 feet of wood. Does she have enough for 10 birdhouses? Use a drawing to justify your answer.

(DOK 3)

52 days

**OPERATIONS AND ALGEBRAIC THINKING (OA)**

**Topic 3 – Apply Properties: Multiplication Facts for 3, 4, 6, 7, 8**

**Topic 4 - Use Multiplication To Divide: Division Facts**

Report Card Learning Targets		
<b>I can....</b> <ul style="list-style-type: none"> <li>Understand and represent multiplication</li> <li>Understand and represent division</li> </ul>		
Assessment Tasks – Topics 3 and 4		
	Procedural Check	Application Task
<b>3.OA.5</b>	Write two different multiplication equations for each of the following fact families. a. 6, 8, 48 b. 4, 7, 28  (DOK 2)	Danny had to figure out how many 6-person teams could play if there were 24 students in the class. He said that he couldn't figure this out because he only knew up to his 5's multiplication facts. How would you explain to Danny that he actually could solve the problem with what he knows?  (DOK 3)
<b>3.OA.6</b>	Solve each equation. $30 \div 6 = 6 \times n$ $72 \div 8 = 8 \times n$ $56 \div 7 = 7 \times n$  (DOK 1)	Use 3, 5, and 15 to write, illustrate, and solve a division story problem.  (DOK 3)
TOPICS 3 AND 4		
Coherence		pp. 105C-105D
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>Work with Equal Groups</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>Meanings of Multiplication and Division</li> </ul>	<b>Topics 3 and 4:</b> <ul style="list-style-type: none"> <li>Break Apart Numbers to Multiply</li> <li>Using Multiplication to Divide</li> <li>Properties</li> <li>Relate Multiplication and Division</li> <li>Patterns</li> </ul>	<b>Look Ahead:</b> <b>Later in Grade 3-</b> <ul style="list-style-type: none"> <li>Fact Fluency</li> <li>Connect Multiplication and Area</li> <li>Use Scaled Graphs</li> <li>Multiples of 10</li> <li>2-Step Problems</li> <li>Measurement Problems</li> </ul>

		<b>Grade 4-</b> <ul style="list-style-type: none"> <li>• Multiplication and Division with Greater Numbers</li> <li>• Fraction Multiplication</li> </ul>
<b>Rigor</b>		<b>p. 105E</b>
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>• Understand the Distributive Property</li> <li>• Understand the Associative Property</li> <li>• Connect Division and Multiplication</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>• Multiplication Facts</li> <li>• Three Factors</li> <li>• Division Facts</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>• Multiplication and Division Situations</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standards #8 and #1</b>	
	<b>p. 105F</b>	
<b>3.MP.8</b> <b>3.MP.1</b>	<p><b>8. Look for and express regularity in repeated reasoning.</b> (Topic 3)  Notice repetitions in mathematics when solving multiple related problems. Use observations and reasoning to find shortcuts or generalizations. Evaluate the reasonableness of intermediate results.  <i>Third grade students use repeated reasoning when they look for patterns and generalize about products and quotients.</i>  I can notice and describe when certain calculations or steps in a procedure are repeated.  I can generalize from examples or repeated observations.  I can recognize and understand appropriate shortcuts.  I can evaluate the reasonableness of intermediate results.</p> <p><b>1. Make sense of problems and persevere in solving them.</b> (Topic 4)  Explain the meaning of a problem, look for entry points to begin work on the problem, and plan and choose a solution pathway. When a solution pathway does not make sense, look for another pathway that does. Explain connections between various solution strategies and representations. Upon finding a solution, look back at the problem to determine whether the solution is reasonable and accurate, often checking answers to problems using a different method or approach.  <i>Third grade students persevere as they try to understand problems involving multiplication and division, plan how to solve them, and determine if their solution makes sense.</i>  I can give a good explanation of the problem.  I can think about a plan before jumping into the solution.  I can think of similar problems, try special cases, or use a simpler form of the problem.  I can, if needed, organize data or use representations to help make sense of the problem.</p>	

	<p>I can identify likely strategies for solving the problem.  I can pause when solving problems to make sure that the work being done makes sense.  I can make sure the answer makes sense before stopping work.</p>		
Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<b>3.OA.5</b> <b>3.OA.6</b> <b>(3.OA.B)</b>	<p><b>Strand: Operations and Algebraic Thinking</b></p> <p>Third grade students demonstrate understanding of the properties of multiplication and the relationship between multiplication and division.</p> <p><b>Standard 3.OA.5</b> Apply properties of operations as strategies to multiply and divide. <i>For example: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known (commutative property of multiplication). <math>3 \times 5 \times 2</math> can be found by <math>3 \times 5 = 15</math>, then <math>15 \times 2 = 30</math>, or by <math>5 \times 2 = 10</math>, then <math>3 \times 10 = 30</math> (associative property of multiplication). Knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, one can find <math>8 \times 7</math> as <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56</math> (distributive property). (Third grade students may, but need not, use formal terms for these properties.)</i></p> <p><b>Standard 3.OA.6</b> Understand division as an unknown-factor problem. Understand the relationship between multiplication and division (multiplication and division are inverse operations). <i>For example, find <math>32 \div 8</math> by finding the number that makes 32 when multiplied by 8.</i></p>	<p><b>Topic 3: Apply Properties: Multiplication Facts for 3, 4, 6, 7, 8</b> (pp. 105I-105K)</p> <p><b>3-1</b> The Distributive Property (pp. 109-114)  <b>3-2</b> Apply Properties: 3 as a Factor (pp. 115-120)  <b>3-3</b> Apply Properties: 4 as a Factor (pp. 121-126)  <b>3-4</b> Apply Properties: 6 and 7 as Factors (pp. 127-132)  <b>3-5</b> Apply Properties: 8 as a Factor (pp. 133-138)  <b>3-6</b> Practice Multiplication Facts (pp. 139-144)  <b>3-7</b> The Associative Property: Multiply with 3 Factors (pp. 145-150)  <b>3-8 Math Practices and Problem Solving: Repeated Reasoning</b> (pp. 151-156)</p> <p><b>Topic 4: Use Multiplication To Divide: Division Facts</b> (pp. 165A-165C)</p> <p><b>4-1</b> Relate Multiplication and Division (pp.169-174)  <b>4-2</b> Use Multiplication to Divide with 2, 3, 4 and 5 (pp. 175-180)  <b>4-3</b> Use Multiplication to Divide with 6 and 7 (pp. 181-186)  <b>4-4</b> Use Multiplication to Divide with 8 and 9 (pp. 187-192)  <b>4-5</b> Multiplication Patterns: Even and Odd Numbers (pp. 193-198)  <b>4-6</b> Division Involving 0 and 1 (pp. 199-204)  <b>4-7</b> Practice Multiplication and Division Facts (pp. 205-210)  <b>4-8</b> Solve Multiplication and Division Equations (pp. 211-216)  <b>4-9 Math Practice and Problem Solving: Make Sense and Persevere</b> (pp. 217-222)</p>	<p><b>Topic 3:</b></p> <ul style="list-style-type: none"> <li>distributive property</li> <li>associative (grouping) property of multiplication</li> </ul> <p><b>Topic 4:</b></p> <ul style="list-style-type: none"> <li>dividend</li> <li>divisor</li> <li>fact family</li> <li>quotient</li> <li>even</li> <li>odd</li> </ul>

**Assessment Options:**

**Topic 3 Assessment - Apply Properties:**  
Multiplication Facts for 3, 4, 6, 7, 8 (*print or online*) (pp. 161-162)

**Topic 3 Performance Assessment - Apply Properties:** Multiplication Facts for 3, 4, 6, 7, 8 (pp. 163-164)

**Topic 4 Assessment – Use Multiplication to Divide:**  
Division Facts (*print or online*) (pp. 229-232)

**Topic 4 Performance Assessment – Use Multiplication to Divide:** Division Facts (pp. 233-234)

**Math Exemplars-** Utilize both Summative Assessment Task and Instructional Tasks/Formative Assessments

**Operations and Algebraic Thinking**

- 3.OA.A.1, 2, & 3

**District Wide Standards-based Benchmark #1 due by Nov. 11**

**Assessment Tasks – Topics 3 and 4**

	<b>Procedural Check</b>	<b>Application Task</b>
<b>3.OA.5</b>	<p>Write two different multiplication equations for each of the following fact families.</p> <p>a. 6, 8, 48</p> <p>b. 4, 7, 28</p> <p align="right">(DOK 2)</p>	<p>Danny had to figure out how many 6-person teams could play if there were 24 students in the class. He said that he couldn't figure this out because he only knew up to his 5's multiplication facts. How would you explain to Danny that he actually could solve the problem with what he knows?</p> <p align="right">(DOK 3)</p>
<b>3.OA.6</b>	<p>Solve each equation.</p> <p><math>30 \div 6 = 6 \times n</math></p> <p><math>72 \div 8 = 8 \times n</math></p> <p><math>56 \div 7 = 7 \times n</math></p> <p align="right">(DOK 1)</p>	<p>Use 3, 5, and 15 to write, illustrate, and solve a division story problem.</p> <p align="right">(DOK 3)</p>

days

**OPERATIONS AND ALGEBRAIC THINKING (OA)**  
**Topic 5 - Fluently Multiply and Divide Within 100**

<b>Report Card Learning Targets</b> <b>I can....</b> <ul style="list-style-type: none"> <li>• Fluently multiply two one-digit numbers within 100</li> <li>• Fluently divide two one-digit numbers within 100</li> <li>• Solve two-step word problems using multiplication and division</li> </ul>		
<b>TOPIC 5</b>		
<b>Coherence</b> <span style="float: right;">pp. 235C-235D</span>		
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>• Work with Equal Groups</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>• Understand Multiplication and Division Situations</li> <li>• Multiplication Facts</li> <li>• Division Facts</li> </ul>	<b>Topic 5:</b> <ul style="list-style-type: none"> <li>• Multiplication Tables</li> <li>• Use Strategies</li> <li>• Connect Stories to Equations</li> <li>• Problems and Patterns</li> </ul>	<b>Look Ahead:</b> <b>Later in Grade 3-</b> <ul style="list-style-type: none"> <li>• Fact Fluency</li> <li>• Connect Multiplication and Area</li> <li>• Multiples of 10</li> <li>• Use Multiplication and Division to Solve Problems</li> </ul> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>• Whole-Number Multiplication and Division</li> <li>• Fraction Multiplication</li> </ul>
<b>Rigor</b> <span style="float: right;">p. 235E</span>		
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>• Relationship Between Multiplication and Division</li> <li>• Understand the Distributive Property</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>• Interpret a Multiplication Table</li> <li>• Use Other Strategies to Multiply and Divide</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>• Multiplication Word Problems</li> <li>• Division Word Problems</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standard #7</b> <span style="float: right;">p. 235F</span>	
<b>3.MP.7</b>	<b>Look for and make use of structure.</b> Recognize and apply the structures of mathematics such as patterns, place value, the properties of operations, or the flexibility of numbers. See complicated things as single objects or as being composed of several objects. <i><b>Third grade students apply the Distributive and Commutative Properties as strategies for solving multiplication and division problems.</b></i> I can analyze and describe patterns in numbers.	

	I can analyze and describe common attributes and patterns in shapes and solids. I can analyze expressions, equations, procedures, and objects to represent, describe, and work with them in different ways.		
Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<b>3.OA.7</b> <b>(3.OA.C)</b>	<b>Strand: Operations and Algebraic Thinking</b> Third grade students represent and solve problems involving multiplication and division within 100. <b>Standard 3.OA.7</b> Fluently multiply and divide. a. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. <i>(For example, knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>).</i> b. By the end of Grade 3, know from memory all products of two one-digit numbers.	<b>Topic 5: Fluently Multiply and Divide Within 100</b> <i>(pp. 235I–235K)</i> <b>5-1</b> Patterns for Multiplication Facts <i>(pp. 237-242)</i> <b>5-2</b> Use a Multiplication Table <i>(pp. 243-248)</i> <b>5-3</b> Find Missing Numbers in a Multiplication Table <i>(pp. 249-254)</i> <b>5-4</b> Use Strategies to Multiply <i>(pp. 255-260)</i> <b>5-5</b> Solve Word Problems: Multiplication and Division Facts <i>(pp. 261-266)</i> <b>5-6</b> Write Math Stories: Multiplication <i>(pp. 267-272)</i> <b>5-7</b> Write Math Stories: Division <i>(pp. 273-278)</i> <b>5-8 Math Practices and Problem Solving: Look for and Use Structure</b> <i>(pp. 279-284)</i>	<b>Topic 5:</b> No new vocabulary words Review as needed
	<b>Assessment Options:</b>	<b>Topic 5 Assessment – Fluently Multiply and Divide Within 100</b> <i>(print or online)</i> <i>(pp. 291-294)</i> <b>Topic 5 Performance Assessment – Fluently Multiply and Divide Within 100</b> <i>(pp. 295-296)</i>	
Assessment Tasks – Topic 5			
	Procedural Check	Application Task	
<b>3.OA.7</b>	Complete each sentence. I know $7 \times 8 = 56$ , therefore I know _____ divided by 7 = 8. I know $4 \times 9 = 36$ , therefore I know 36 divided by 9 = _____. I know $3 \times 5 = 15$ , therefore I know $6 \times 5 =$ _____. (DOK 2)	There are 5 tables in the lunchroom. Six students sit at each table. How many students are in the lunchroom? Mari has 48 crayons. She knows that 8 crayons can fit in a box. How many boxes will she need? Justify your answers with pictures or words. (DOK 3)	

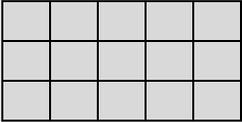
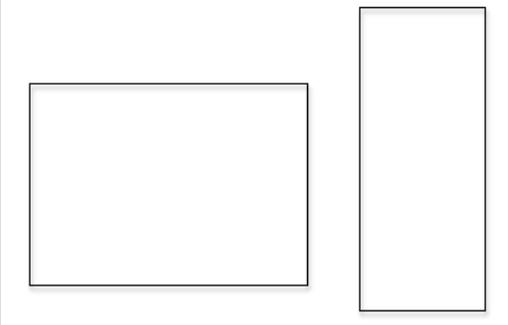
days

## MEASUREMENT AND DATA (MD)

## Topic 6 - Connect Area to Multiplication and Addition

<b>Report Card Learning Targets</b> <b>I can....</b> <ul style="list-style-type: none"> <li>Understand and apply area and perimeter</li> </ul>		
<b>TOPIC 6</b>		
<b>Coherence</b>		<b>pp. 297C-297D</b>
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>Work with Equal Groups</li> <li>Measure Length</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>Arrays and Multiplication</li> <li>Distributive Property</li> </ul>	<b>Topic 6:</b> <ul style="list-style-type: none"> <li>Area as Covering</li> <li>Relate Area to Multiplication and Addition</li> <li>Distributive Property</li> <li>Area of Irregular Rectilinear Figures</li> </ul>	<b>Look Ahead:</b> <b>Later in Grade 3-</b> <ul style="list-style-type: none"> <li>Area and Perimeter</li> </ul> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>Area Formulas</li> </ul>
<b>Rigor</b>		<b>p. 297E</b>
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>Understand Area as Covering with Unit Squares</li> <li>Connect Area to Multiplication and Addition</li> <li>Distributive Property</li> <li>Area Is Additive</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>Multiply to Find Area</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>Area Problems</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standard #7</b>	
	<b>p. 297F</b>	
<b>3.MP.7</b>	<b>Look for and make use of structure.</b> Recognize and apply the structures of mathematics such as patterns, place value, the properties of operations, or the flexibility of numbers. See complicated things as single objects or as being composed of several objects. <b><i>Third grade students use structure when they use the Distributive Property to break apart an area.</i></b> I can analyze and describe patterns in numbers. I can analyze and describe common attributes and patterns in shapes and solids. I can analyze expressions, equations, procedures, and objects to represent, describe, and work with them in	

Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<p><b>3.MD.5</b> <b>3.MD.6</b> <b>3.MD.7</b> <b>(3.MD.C)</b></p>	<p><b>Strand: Measurement and Data</b></p> <p>Third grade students will understand concepts of area and relate area to multiplication and addition.</p> <p><b>Standard 3.MD.5</b> Recognize area as an attribute of plane figures and understand concepts of area measurement.</p> <ol style="list-style-type: none"> <li>A square with side length one unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.</li> <li>A plane figure which can be covered without gaps or overlaps by <math>n</math> unit squares is said to have an area of <math>n</math> square units.</li> </ol> <p><b>Standard 3.MD.6</b> Measure area by counting unit squares (square centimeters, square meters, square inches, square feet, and improvised units).</p> <p><b>Standard 3.MD.7</b> Relate area to the operations of multiplication and addition (refer to 3.OA.5).</p> <ol style="list-style-type: none"> <li>Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.</li> <li>Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.</li> <li>Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths <math>a</math> and <math>b + c</math> is the sum of <math>a \times b</math> and <math>a \times c</math>. Use area models to represent the distributive property in mathematical reasoning.</li> <li>Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve</li> </ol>	<p><b>Topic 6: Connect Area to Multiplication and Addition</b> (pp. 297I-297K)</p> <p><b>6-1</b> Cover Regions (pp. 301-306)</p> <p><b>6-2</b> Area: Nonstandard Units (pp. 307-312)</p> <p><b>6-3</b> Area: Standard Units (pp. 313-318)</p> <p><b>6-4</b> Area of Squares and Rectangles (pp. 319-324)</p> <p><b>6-5</b> Apply Properties: Area and the Distributive Property (pp. 325-330)</p> <p><b>6-6</b> Apply Properties: Area of Irregular Shapes (pp. 331-336)</p> <p><b>6-7 Math Practices and Problem Solving: Look for and Use Structure</b> (pp. 337-342)</p>	<p><b>Topic 5:</b></p> <ul style="list-style-type: none"> <li>area</li> <li>unit square</li> <li>square unit</li> <li>estimate</li> </ul>

	real-world problems.		
	<p><b>Assessment Options:</b></p> <p><b>Topic 6 Assessment</b> – Connect Area to Multiplication and Addition (<i>print or online</i>) (pp. 349-352)</p>	<p><b>Topic 6 Performance Assessment</b> – Connect Area to Multiplication and Addition (pp. 353-354)</p>	
<b>Assessment Tasks – Topic 6</b>			
	<b>Procedural Check</b>	<b>Application Task</b>	
<b>3.MD.5</b>	<p>Each tile is 1 square unit. How many tiles are needed to cover an area that is</p> <p>12 square units? _____</p> <p>27 square units? _____</p> <p>386 square units? _____</p> <p>(DOK 1)</p>	<p>Grandma’s quilt had 30 square pieces. The side of each piece was 2 inches. What was the area of grandma’s quilt? Draw a picture and use labels to justify your answer</p> <p>(DOK 3)</p>	
<b>3.MD.6</b>	<p>Find the area of the following shape. Each square represents 1 square foot.</p>  <p>(DOK 1)</p>	<p>David used 30 soccer stickers to completely cover his report folder. If each sticker was 1 inch by 1 inch, what was the total area of his report cover?</p> <p>(DOK 2)</p>  <p>Which rectangle has the greater area? Use words and numbers to justify your answer.</p> <p>(DOK 3)</p>	
<b>3.MD.7</b>	<p>What is the total area of a rectangular room that is 4 meters wide and 8 meters long?</p> <p>(DOK 1)</p>	<p>Taylor’s dream house design had three connected rectangles.</p> <p>Area 1 – <math>9 \times 8</math> yards</p> <p>Area 2 – <math>7 \times 10</math> yards</p> <p>Area 3 – <math>6 \times 12</math> yards</p> <p>Use a drawing to represent Taylor’s dream house and find the total area of these three spaces.</p> <p>(DOK 3)</p>	

days

**MEASUREMENT AND DATA (MD)**  
**Topic 7 - Represent and Interpret Data**

<b>Report Card Learning Targets</b>		
<b>I can....</b>		
<ul style="list-style-type: none"> <li>• Generate, represent, and interpret data using scaled graphs and line plots</li> </ul>		
<b>TOPIC 7</b>		
<b>Coherence</b>		<b>pp. 355C-355D</b>
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>• Picture Graphs and Bar Graphs</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>• Multiplication and Division</li> </ul>	<b>Topic 7:</b> <ul style="list-style-type: none"> <li>• Read and Make Graphs</li> <li>• Similar Data in Different Graphs</li> <li>• Connection to Understanding Multiplication</li> <li>• Connection to Two-Step Word Problems</li> </ul>	<b>Look Ahead:</b> <b>Later in Grade 3-</b> <ul style="list-style-type: none"> <li>• Line Plots</li> </ul> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>• Line Plots</li> </ul>
<b>Rigor</b>		<b>p. 355E</b>
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>• Picture Graphs: Understand the Pictures</li> <li>• Bar Graphs: Understand the Bars</li> <li>• Understand the Scale</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>• Make Graphs</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>• Real-World Data</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standard #6</b>	
	<b>p. 355F</b>	
<b>3.MP.6</b>	<p><b>Attend to precision.</b>  Communicate precisely to others by crafting careful explanations that communicate mathematical reasoning by referring specifically to each important mathematical element, describing the relationships among them, and connecting their words clearly to their representations. Calculate accurately and efficiently, and use clear and concise notation to record their work.</p> <p><b><i>Third grade students attend to precision as they accurately interpret the meaning of pictures representing data in picture graphs.</i></b></p> <ul style="list-style-type: none"> <li>I can compute accurately.</li> <li>I can use symbols appropriately.</li> <li>I can accurately use problem-solving strategies.</li> <li>I can specify and use units of measure appropriately.</li> <li>I can decide whether an exact answer or estimate is needed.</li> </ul>	

	I can calculate efficiently, accurately, and fluently.		
Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
3.MD.3 3.MD.4 (3.MD.B)	<p><b>Strand: Measurement and Data</b></p> <p>Third grade students will represent and interpret data.</p> <p><b>Standard 3.MD.3</b> Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. <i>For example, draw a bar graph in which each square in the bar graph might represent five pets.</i></p> <p><b>Standard 3.MD.4</b> Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.</p> <p><b>(Lesson 12-6 Line Plots and Lengths and Lesson 12-7 More Line Plots and Length support standard 3.MD.4 in more depth)</b></p>	<p><b>Topic 7: Represent and Interpret Data</b> (pp. 355I-355J)</p> <p><b>7-1</b> Read Picture Graphs and Bar Graphs (pp. 359-364)</p> <p><b>7-2</b> Make Picture Graphs (pp. 365-370)</p> <p><b>7-3</b> Make Bar Graphs (pp. 371-376)</p> <p><b>7-4</b> Solve Word Problems Using Information in Graphs (pp. 377-382)</p> <p><b>7-5 Math Practices and Problem Solving: Precision</b> (pp. 383-388)</p>	<p><b>Topic 7:</b></p> <ul style="list-style-type: none"> <li>• data</li> <li>• scaled picture graph</li> <li>• scale</li> <li>• key</li> <li>• scaled bar graph</li> <li>• frequency table</li> <li>• survey</li> </ul>
	<p><b>Assessment Options:</b></p>	<p><b>Topic 7 Assessment – Represent and Interpret Data</b> (print or online) (pp. 395-398)</p> <p><b>Topic 7 Performance Assessment - Represent and Interpret Data</b> (pp. 399-400)</p>	
Assessment Tasks – Topic 7			
	Procedural Check	Application Task	
3.MD.3	<p>Make a pictograph for the following data. In Mrs. Dunn’s class, 8 students like to play kickball, 9 students like to play soccer, and 5 students liked to play on the playground.</p>	<p>Talia did her social studies project on immigration. She learned that 12 students had family members from Europe. The number of families from Mexico was 5 less than from Europe. The number of families from the Middle East was 2</p>	

more than the number from Mexico.  
 Draw a graph that shows Talia's data.  
 (DOK 3)

(DOK 2)

3<sup>rd</sup> Grade

**Flexible Pacing: 47**

**DWSBA 2: November 14-February 3**

**days**

**NUMBERS AND OPERATIONS IN BASE TEN (NBT)**  
**Topic 8 - Use Strategies and Properties to Add and Subtract**

<b>Report Card Learning Targets I can....</b> <ul style="list-style-type: none"> <li>• Fluently add within 1000</li> <li>• Fluently subtract within 1000</li> </ul>		
<b>TOPIC 8</b>		
<b>Coherence</b> <span style="float: right;">pp. 401C-401D</span>		
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>• Use Models and Strategies to Add and Subtract Within 1,000</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>• Properties of Operations</li> <li>• Multiply by 10</li> <li>• Multiplication Facts Within 100</li> </ul>	<b>Topic 8:</b> <ul style="list-style-type: none"> <li>• Place-Value Concepts</li> <li>• Properties of Operations</li> <li>• Addition Patterns</li> </ul>	<b>Look Ahead:</b> <b>Later in Grade 3-</b> <ul style="list-style-type: none"> <li>• Solve Word Problems</li> </ul> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>• Fluently Add and Subtract Multi-Digit Whole Numbers</li> <li>• Multiply by 1- and 2-Digit Numbers</li> <li>• Solve Word Problems</li> </ul>
<b>Rigor</b> <span style="float: right;">p. 401E</span>		
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>• Connect Rounding to Place Value</li> <li>• Understand Properties of Addition and the Relationship Between Addition and Subtraction</li> <li>• Use Place Value to Add and Subtract</li> <li>• Understand Multiplying by a Multiple of 10</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>• Algorithms to Add and Subtract</li> <li>• Round and Estimate</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>• Addition and Subtraction Situations</li> <li>• Multiplication Situations</li> </ul>

Focus	Strand: Mathematical Practice Standard #4		p. 401F
3.MP.4	<p><b>Model with mathematics.</b>            Identify the mathematical elements of a situation and create a mathematical model that shows the relationships among them. Identify important quantities in a contextual situation, use mathematical models to show the relationships of those quantities, analyze the relationships, and draw conclusions. Models may be verbal, contextual, visual, symbolic, or physical.</p> <p><b>Third grade students apply addition and subtraction strategies to solve word problems.</b>            I can identify the correct prior knowledge that needs to be applied to solve a problem.            I can identify the hidden question(s) in multiple-step problems.            I can use numbers, symbols, and words to solve problems.            I can identify the operation(s) needed to solve a problem.            I can use estimation as appropriate.</p>		
Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
3.NBT.1 3.NBT.2 (3.NBT.A)	<p><b>Strand: Numbers and Operations in Base Ten</b></p> <p>Third grade students use place value understanding and properties of operations to perform multi-digit arithmetic. A range of algorithms may be used.</p> <p><b>Standard 3.NBT.1</b> Use place value understanding to round whole numbers to the nearest 10 or 100.</p> <p><b>Standard 3.NBT.2</b> Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>	<p><b>Topic 8: Use Strategies and Properties to Add and Subtract</b> (pp. 401I- 401K)</p> <p><b>8-1</b> Addition Properties (pp. 405-410)  <b>8-2</b> Algebra: Addition Patterns (pp. 411-416)  <b>8-3</b> Round Whole Numbers (pp. 417-422)  <b>8-4</b> Mental Math: Addition (pp. 423-428)  <b>8-5</b> Mental Math: Subtraction (pp. 429-434)  <b>8-6</b> Estimate Sums (pp. 435-440)  <b>8-7</b> Estimate Differences (pp. 441-446)  <b>8-8</b> Relate Addition and Subtraction (pp. 447-452)  <b>8-9 Math Practices and Problem Solving: Model with Math</b> (pp. 453-458)</p>	<p><b>Topic 8:</b></p> <ul style="list-style-type: none"> <li>• associative (grouping) property of addition</li> <li>• commutative (order) property of addition</li> <li>• identity (zero) property of addition</li> <li>• round</li> <li>• place value</li> <li>• compatible numbers</li> <li>• inverse operations</li> </ul>
	<p><b>Assessment Options:</b></p>	<p><b>Topic 8 Performance Assessment - Use</b></p>	

**Math Exemplars-** Utilize both Summative Assessment Task and Instructional Tasks/Formative Assessments

**Number and Operations in Base Ten**

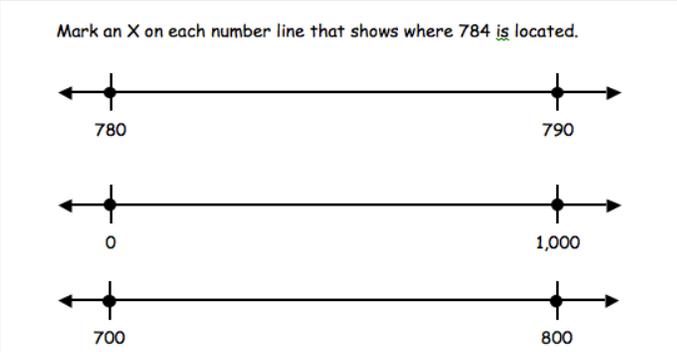
- 3.NBT.A1 & 3

**Measurement and Data**

- 3.MD.B.3 and 4
- 3.MD.C.5a, 5b
- 3.MD.C.6
- 3.MD.C.7a, 7b, 7c & 7d

# District Wide Standards-based Benchmark #1 due by Nov. 11

## Assessment Tasks – Topic 8

	Procedural Check	Application Task
<b>3.NBT.1</b>	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p style="font-size: small;">Mark an X on each number line that shows where 784 is located.</p>  </div> <p>(DOK 2)</p>	<p>Give students a paper with a number line labeled 200 – 300. Have them place the following five numbers on the number line: 225, 279, 250, 205, 290. Have them write to justify why each number was placed in the particular position on the number line. (DOK 3)</p> <p>Jerry rolled three number cubes and made 871. Leah rolled three number cubes and made 932. If rounded to the nearest hundred, would both of the numbers be the same? Use a number line to justify your answer. (DOK 3)</p> <p>Which is more accurate: rounding to the nearest 100 or the nearest 10? Use words and pictures to justify your answer. (DOK 3)</p>
<b>3.NBT.2</b>	<p>Solve the following:</p> <p><math>78 + 56 = \underline{\hspace{2cm}}</math></p> <p><math>129 + \underline{\hspace{2cm}} = 461</math></p> <p><math>935 - 12 = \underline{\hspace{2cm}}</math></p> <p><math>248 - \underline{\hspace{2cm}} = 80</math></p>	<p>Gina and her brother need \$79 to buy their mother a gift. Gina has \$35. How much does her brother need so that they will have enough money to buy the gift? Use words or pictures to justify your answer. (DOK 3)</p> <p>Brendan read 271 pages on Monday and 134 pages on Tuesday. His goal for the week is 600 pages. How many more pages does he need to read? Use pictures or words to justify your answer. (DOK 3)</p> <p>I have some marbles. I give some to my brother and now I have 15. How many marbles might I have started with and how many did I give away? Use words, numbers, and pictures to justify your answer. (DOK 3)</p> <p>The difference between two three-digit numbers is 428.</p>

(DOK 1)

What might the two numbers be? Use numbers and pictures to justify your answer. (DOK 3)

3<sup>rd</sup> Grade

Flexible Pacing:

DWSBA 3: February 6-April 14

42 days

**NUMBERS AND OPERATIONS IN BASE TEN (NBT)**

**Topic 9 - Fluently Add and Subtract Within 1,000**

**Topic 10 - Multiply by Multiples of 10**

**Report Card Learning Targets**

**I can....**

- Fluently add with 1000
- Fluently subtract within 1000
- Multiply numbers by multiples of 10

**TOPICS 9 and 10**

**Coherence**

pp. 401C-401D

**Look back:**

**Grade 2-**

- Use Models and Strategies to Add and Subtract Within 1,000

**Earlier in Grade 3-**

- Properties of Operations
- Multiply by 10
- Multiplication Facts Within 100

**Topics 9 and 10:**

- Place-Value Concepts
- Properties of Operations
- Addition Patterns

**Look Ahead:**

**Later in Grade 3-**

- Solve Word Problems

**Grade 4-**

- Fluently Add and Subtract Multi-Digit Whole Numbers
- Multiply by 1- and 2-Digit Numbers
- Solve Word Problems

**Rigor**

p. 401E

**Conceptual Understanding:**

- Connect Rounding to Place Value
- Understand Properties of Addition and the Relationship Between Addition and Subtraction
- Use Place Value to Add and Subtract
- Understand Multiplying by a Multiple of 10

**Procedural Skill and Fluency:**

- Algorithms to Add and Subtract
- Round and Estimate

**Applications:**

- Addition and Subtraction Situations
- Multiplication Situations

**Focus**

**Strand: Mathematical Practice Standards #3 and #7**

p. 401F

<p><b>3.MP.3</b> <b>3.MP.7</b></p>	<p><b>3. Construct viable arguments and critique the reasoning of others.</b> (Topic 9) Use stated assumptions, definitions, and previously established results to construct arguments. Explain and justify the mathematical reasoning underlying a strategy, solution, or conjecture by using concrete referents such as objects, drawings, diagrams, and actions. Listen to or read the arguments of others, decide whether they make sense, ask useful questions to clarify or improve the arguments, and build on those arguments. <b>Third grade students critique strategies for addition and subtraction.</b> I can provide complete and clear explanations of my thinking and work. I can decide if other students' explanations make sense; clarify or improve other students' arguments. I can use counterexamples when appropriate.</p> <p><b>7. Look for and make use of structure.</b> (Topic 10) Recognize and apply the structures of mathematics such as patterns, place value, the properties of operations, or the flexibility of numbers. See complicated things as single objects or as being composed of several objects. <b>Third grade students use place-value properties to decompose numbers when adding and subtracting.</b> I can analyze and describe patterns in numbers. I can analyze and describe common attributes and patterns in shapes and solids. I can analyze expressions, equations, procedures, and objects to represent, describe, and work with them in different ways.</p>
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Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<p><b>3.NBT.1</b> <b>3.NBT.2</b> <b>3.NBT.3</b> <b>(3.NBT.A)</b></p>	<p><b>Strand: Numbers and Operations in Base Ten</b></p> <p>Third grade students use place value understanding and properties of operations to perform multi-digit arithmetic. A range of algorithms may be used.</p> <p><b>Standard 3.NBT.1</b> Use place value understanding to round whole numbers to the nearest 10 or 100.</p> <p><b>Standard 3.NBT.2</b> Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p><b>Standard 3.NBT.3</b> Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (for example, <math>9 \times 80</math> and <math>5 \times 60</math>) using</p>	<p><b>Topic 9: Fluently Add and Subtract Within 1,000</b> (pp. 471A-471C)</p> <p><b>9-1</b> Use Partial Sums To Add (pp. 475-480) <b>9-2</b> Add 3-Digit Numbers (pp. 481-486) <b>9-3</b> Continue To Add 3-Digit Numbers (pp. 487-492) <b>9-4</b> Add 3 Or More Numbers (pp. 493-498) <b>9-5</b> Use Partial Differences To Subtract (pp. 499-504) <b>9-6</b> Subtract 3-Digit Numbers (pp. 505-510) <b>9-7</b> Continue To Subtract 3-Digit Numbers (pp. 511-516) <b>9-8 Math Practices And Problem Solving: Construct Argument</b> (pp. 517-522)</p> <p><b>Topic 10: Multiply by Multiples of 10</b> (pp. 535A – 535B)</p>	<p><b>Topic 9</b></p> <ul style="list-style-type: none"> <li>regroup</li> </ul> <p><b>Topic 10</b></p> <ul style="list-style-type: none"> <li>open number line</li> </ul>

	strategies based on place value and properties of operations.	<b>10-1</b> Use An Open Number Line To Multiply (pp. 539-544) <b>10-2</b> Use Properties To Multiply (pp. 545-550) <b>10-3</b> Multiply By Multiples Of 10 (pp.551-556) <b>10-4 Math Practices And Problem Solving: Look For And Use Structure</b> (pp. 557-562)	
	<b>Assessment Options:</b> <b>Topic 9 Assessment</b> – Fluently Add and Subtract Within 1,000 ( <i>print or online</i> ) (pp. 529-532) <b>Topic 9 Performance Assessment</b> - Fluently Add and Subtract Within 1,000 (pp. 533-534)	<b>Topic 10 Assessment</b> – Multiply by Multiples of 10 ( <i>print or online</i> ) (pp. 567-568) <b>Topic 10 Performance Assessment</b> - Multiply by Multiples of 10 (pp. 569-570)	
<b>Assessment Tasks – Topics 9 and 10</b>			
	<b>Procedural Check</b>	<b>Application Task</b>	
<b>3.NBT.1</b>	Round 17 to the nearest ten.  Round 22 to the nearest ten.  Round 234 to the nearest hundred.  Round 650 to the nearest hundred.  Round 459 to the nearest hundred.  Round 987 to the nearest hundred. (DOK 1)	Use a number line to explain why 450 is the least number that rounds to 500. Use words or pictures to justify your answer.          (DOK 3)	
<b>3.NBT.2</b>	Subtract 762 – 239 Show your work.     (DOK 1)	There are 53 girls and 29 boys going on the field trip to the zoo. How many people are going to the zoo tomorrow. Draw models and use words to justify your answer.     (DOK 3)	
<b>3.NBT.3</b>	$2 \times 10 =$ $9 \times 40 =$ $60 \times 5 =$ $20 \times 8 =$ (DOK 1)	In Mr. Smith’s art classroom there are 5 tables. There are 4 students sitting at each table. Each student has a box of 10 colored pencils. a. How many colored pencils are at each table? How many colored pencils do Mr. Smith’s students have in	

$3 \times 50 = 3 \times (\text{ } \times 10)$ $7 \times 30 = 7 \times (3 \times \text{ })$	all? Use pictures, words and numbers to prove your answer. (DOK 3)
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**DWSBA 3: February 6-April 14**

3<sup>rd</sup> Grade  
**Flexible Pacing:**

**42 days**

**OPERATIONS AND ALGEBRAIC THINKING (OA)**

**Topic 11 - Use Operations with Whole Numbers to Solve Problems**

<b>Report Card Learning Targets</b> <b>I can....</b> <ul style="list-style-type: none"> <li>Solve two-step word problems using addition and subtraction</li> <li>Solve two-step word problems using multiplication and division</li> </ul>		
<b>TOPIC 11</b>		
<b>Coherence</b>		<b>pp. 571C-571D</b>
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>Solve Addition and Subtraction Problems</li> <li>Solve Measurement Problems</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>Solve One-Step Multiplication and Division Problems</li> <li>Solve One-Step Addition and Subtraction Problems</li> <li>Estimation</li> </ul>	<b>Topic 11:</b> <ul style="list-style-type: none"> <li>Two-Step Problems</li> </ul>	<b>Look Ahead:</b> <b>Later in Grade 3-</b> <ul style="list-style-type: none"> <li>Word Problems Involving Fractions and Measurement</li> </ul> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>Multi-Step Word Problems with Whole Numbers</li> <li>Word Problems Involving Fractions</li> </ul>
<b>Rigor</b>		<b>p. 571E</b>
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>Understand How to Write Equations to Solve Problems</li> <li>Understand Bar Diagrams</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>Order of Operations</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>Two-Step Problems</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standard #3</b>	
<b>3.MP.3</b>	<b>Construct viable arguments and critique the reasoning of others.</b> Use stated assumptions, definitions, and previously established results to construct arguments. Explain and justify the mathematical reasoning underlying a strategy, solution, or conjecture by using concrete referents such as objects, drawings, diagrams, and actions. Listen to or read the arguments of others, decide whether they make sense, ask useful	

questions to clarify or improve the arguments, and build on those arguments.

***Third grade students critique the reasoning of others by analyzing the arguments used to support each step of a two-step problem.***

I can ask questions to understand other people’s thinking.  
 I can identify mistakes in other people’s thinking.  
 I can provide suggestions for improving other people’s thinking.

Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<p><b>3.OA.8</b>  <b>3.OA.9</b>  <b>(3.OA.D)</b></p>	<p><b>Strand: Operations and Algebraic Thinking</b></p> <p>Third grade students use the four operations to identify and explain patterns in arithmetic.</p> <p><b>Standard 3.OA.8</b> Solve two-step word problems.</p> <p>a. Solve two-step word problems using the four operations. Know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations). (Limit to problems posed with whole numbers and having whole number answers.)</p> <p>b. Represent two-step problems using equations with a letter standing for the unknown quantity. Create accurate equations to match word problems.</p> <p>c. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p> <p><b>Standard 3.OA.9</b> Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. <i>For example, observe that four times a number is always even, and explain why four times a number can be decomposed into two equal addends.</i></p>	<p><b>Topic 11: Use Operations with Whole Numbers to Solve Problems</b>  <i>(pp. 571I-571J)</i></p> <p><b>11-1</b> Solve 2-Step Word Problems: Addition and Subtraction  <i>(pp. 573-578)</i></p> <p><b>11-2</b> Solve 2-Step Word Problems: Multiplication and Division  <i>(pp. 579-584)</i></p> <p><b>11-3</b> Solve 2-Step Word Problems: All Operations <i>(pp. 585-590)</i></p> <p><b>11-4 Math Practices and Problem Solving: Critique Reasoning</b>  <i>(pp. 591-596)</i></p>	<p><b>Topic 11:</b></p> <p>No new vocabulary words</p> <p>Review as needed</p>
<p>©Canyon School District 2016</p>	<p><b>Assessment Options:</b></p> <p><b>Topic 10 Assessment – Use Operations with Whole</b></p>	<p><b>Topic 10 Performance Assessment - Use</b></p>	

	Numbers to Solve Problems ( <i>print or online</i> ) (pp. 601-602)	Operations with Whole Numbers to Solve Problems (pp. 603-604)	
<b>Assessment Tasks – Topic 11</b>			
	<b>Procedural Check</b>	<b>Application Task</b>	
<b>3.OA.8</b>	<p>Josie needs 85 cupcakes for a birthday party. She has 31 strawberry cupcakes and 16 chocolate cupcakes. How many more cupcakes does she need?</p> <p>(DOK 1)</p>	<p>Juanita did 16 math problems on Monday and 3 pages of math problems on Tuesday. Each page had an equal number of problems. She did 40 problems in all. Write an equation representing this problem using a letter for the unknown quantity. How many problems were on each page? Use pictures, words, and numbers to justify your answer.</p> <p>(DOK 3)</p>	
<b>3.OA.9</b>	<p>What is the next number in each pattern?</p> <p>10, 12, 14, _____</p> <p>25, 30, 35, _____</p> <p>18, 27, 36, _____</p> <p>(DOK 1)</p>	<p>Color all the multiples of 9 between 0 and 90 on a multiplication table. Describe what do you notice about the sum of the digits in each multiple?</p> <p>(DOK 2)</p> <p>Cleo stated the following rule: 5 times an even number equals an even product and 5 times an odd number equals an odd product. Is Cleo’s rule correct? Use a Hundreds Chart to justify your answer.</p> <p>(DOK 3)</p> <p>Is the following statement correct?  <math>5 \times 4</math> is the same as doubling <math>5 \times 2</math>?          Use pictures, words, and numbers to justify your answer.          Does the rule apply to multiplying other numbers by 4?          Use pictures, words, and numbers to justify your answer.</p> <p>(DOK 3)</p>	

DWSBA 3: February 6-April 14

3<sup>rd</sup> Grade  
Flexible Pacing:

42 days

**NUMBERS AND OPERATIONS—FRACTIONS (NF)**  
**Topic 12 - Understanding Fractions As Numbers**

<b>Report Card Learning Targets</b> I can....		
<ul style="list-style-type: none"> <li>• Understand and represent that a fraction is part of a whole</li> <li>• Understand and represent fractions on a number line</li> </ul>		
<b>TOPIC 12</b>		
<b>Coherence</b>		<b>pp. 605C-605D</b>
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>• Measure Lengths</li> <li>• Partition Shapes</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>• Number Lines</li> <li>• Interpret Graphs</li> </ul>	<b>Topic 12:</b> <ul style="list-style-type: none"> <li>• Build on the Concept of Unit Fractions</li> <li>• Fraction Representations</li> </ul>	<b>Look Ahead:</b> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>• Extend Understanding of Fraction Equivalence and Comparison</li> <li>• Operations with Fractions</li> <li>• Solve Problems Involving Fractions and Line Plots</li> </ul>
<b>Rigor</b>		<b>p. 605E</b>
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>• Meaning of Fractions</li> <li>• Equivalence</li> <li>• Fraction Comparison</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>• Equivalence</li> <li>• Strategies for Comparing Fractions</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>• Fraction Problems</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standard #1</b>	
	<b>p. 605F</b>	
<b>3.MP.1</b>	<b>Make sense of problems and persevere in solving them.</b> Explain the meaning of a problem, look for entry points to begin work on the problem, and plan and choose a solution pathway. When a solution pathway does not make sense, look for another pathway that does. Explain connections between various solution strategies and representations. Upon finding a solution, look back at the problem to determine whether the solution is reasonable and accurate, often checking answers to problems using a different method or approach.	

***Third grade students persevere in solving problems that may have missing or extra information.***

I can give a good explanation of the problem.

I can think about a plan before jumping into the solution.

I can think of similar problems, try special cases, or use a simpler form of the problem.

I can, if needed, organize data or use representations to help make sense of the problem.

I can identify likely strategies for solving the problem.

I can pause when solving problems to make sure that the work being done makes sense.

I can make sure the answer makes sense before stopping work.

I don't give up when stuck.

I can look for ways to get past being stuck.

I can try alternative ways to solve the problem when I am stuck.

Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
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3.MD.4

**Strand: Measurement and Data**

Third grade students will represent and interpret data.

**Standard 3.MD.4** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by marking a line plot where the horizontal scale is marked off in appropriate units-whole numbers, halves, or quarters.

3.NF.1

3.NF.2

3.NF.3

(3.NF.A)

**Strand: Numbers and Operations—Fractions**

Third grade students develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8 in third grade.

**Standard 3.NF.1** Understand that a unit fraction has a numerator of one and a non-zero denominator.

- a. Understand a fraction  $1/b$  as the quantity formed by one part, when a whole is partitioned into  $b$  equal parts.
- b. Understand a fraction  $a/b$  as the quantity formed by  $a$  parts of size  $1/b$ . For example:  $1/4 + 1/4 + 1/4 = 3/4$ .

**Standard 3.NF.2** Understand a fraction as a number on the number line; represent fractions on a number line diagram.

- a. Represent a fraction  $1/b$  on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into  $b$  equal parts. Recognize that each part has size  $1/b$  and that the endpoint of the part based at 0 locates the number  $1/b$  on the number line.
- b. Represent a fraction  $a/b$  on a number line diagram by marking off  $a$  lengths  $1/b$  from 0. Recognize that the resulting interval has size  $a/b$  and that its endpoint locates the number  $a/b$  on the number line.

**Standard 3.NF.3** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

**Topic 12: Understanding Fractions As Numbers** (pp. 605I-605K)

**12-1** Divide Regions into Equal Parts (pp. 609-614)

**12-2** Fractions and Regions (pp. 615-620)

**12-3** Understand the Whole (pp. 621-626)

**12-4** Number Line: Fractions Less Than 1 (pp. 627-632)

**12-5** Number Line: Fractions Greater Than 1 (pp. 633-638)

**12-6** Line Plots and Length (pp. 639-644)

**12-7** More Line Plots and Length (pp. 645-650)

**12-8 Math practices and problem solving: Make sense and persevere** (pp. 651-656)

**Topic 12:**

- fraction
- unit fraction
- numerator
- denominator
- nearest fourth inch
- line plot
- nearest half inch

same size, or the same point on a number line.

- b. Recognize and generate simple equivalent fractions, such as  $1/2 = 2/4$ ,  $4/6 = 2/3$ . *Explain why the fractions are equivalent by using a visual fraction model, for example.*
- c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *For example, express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.*
- d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. *Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, for example, by using a visual fraction model.*

**Assessment Options:**

**Topic 12 Assessment –**  
Understanding Fractions As  
Numbers (*print or online*)  
(pp. 663-666)

**Topic 12 Performance Assessment -**  
Understanding Fractions As  
Numbers (pp. 667-668)

**Math Exemplars**- Utilize both Summative Assessment Task and Instructional Tasks/Formative Assessments

**Operations and Algebraic Thinking**

- 3.OA.D.8 & 9

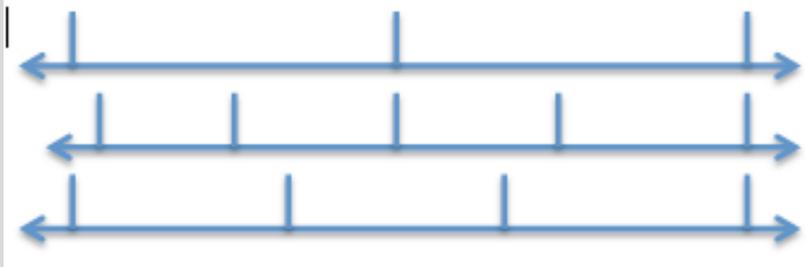
**Number and Operations in Base Ten**

- 3.NBT.A.1 & 3

**Number and Operations - Fractions**

- 3.NF.A.1, 2a, 2b, 3a, 3b & 3d

## Assessment Tasks – Topic 12

	<b>Procedural Check</b>	<b>Application Task</b>
<b>3.NF.1</b>	For each unit fraction, identify the number of parts that make up the whole. 1/8 - _____ parts in the whole 1/6 - _____ parts in the whole 1/12 - _____ parts in the whole (DOK 1)	Juan ate $\frac{1}{4}$ of the pizza. Draw a picture of the pizza and color the portion that Juan ate. Explain your drawing.  (DOK 3)
<b>3.NF.2</b>	For each number line, tell how many parts make up the whole.   (DOK 1)	Henry's 3rd grade class is planting a school garden. They have 6 tomato plants that need to be planted in one row. The plants must be spaced evenly across the row. Draw a number line to show how the tomatoes should be planted.   (DOK 2)

**NUMBERS AND OPERATIONS—FRACTIONS (NF)**  
**Topic 13 - Fraction Equivalence and Comparison**

<b>Report Card Learning Targets</b> <b>I can....</b> <ul style="list-style-type: none"> <li>• Understand and represent that a fraction is part of a whole</li> <li>• Understand and represent fractions on a number line</li> <li>• Understand equivalent fractions</li> <li>• Compare fractions</li> </ul>		
<b>TOPIC 13</b>		
<b>Coherence</b>		<b>pp. 605C-605D</b>
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>• Measure Lengths</li> <li>• Partition Shapes</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>• Number Lines</li> <li>• Interpret Graphs</li> </ul>	<b>Topic 13:</b> <ul style="list-style-type: none"> <li>• Build on the Concept of Unit Fractions</li> <li>• Fraction Representations</li> </ul>	<b>Look Ahead:</b> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>• Extend Understanding of Fraction Equivalence and Comparison</li> <li>• Operations with Fractions</li> <li>• Solve Problems Involving Fractions and Line Plots</li> </ul>
<b>Rigor</b>		<b>p. 605E</b>
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>• Meaning of Fractions</li> <li>• Equivalence</li> <li>• Fraction Comparison</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>• Equivalence</li> <li>• Strategies for Comparing Fractions</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>• Fraction Problems</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standard #3</b>	
	<b>p. 605F</b>	
<b>3.MP.3</b>	<b>Construct viable arguments and critique the reasoning of others.</b> Use stated assumptions, definitions, and previously established results to construct arguments. Explain and justify the mathematical reasoning underlying a strategy, solution, or conjecture by using concrete referents such as objects, drawings, diagrams, and actions. Listen to or read the arguments of others, decide whether they make sense, ask useful questions to clarify or improve the arguments, and build on those arguments. <i>Third grade students construct arguments to justify conjectures about equivalent fractions.</i>	

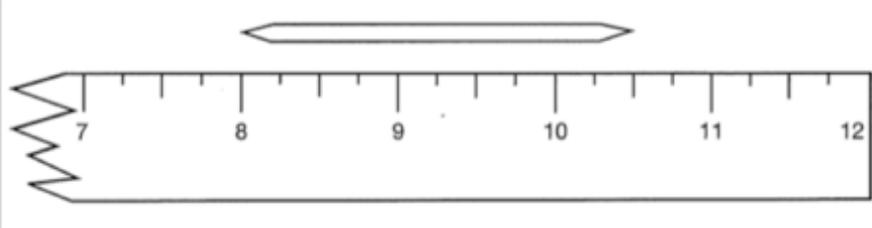
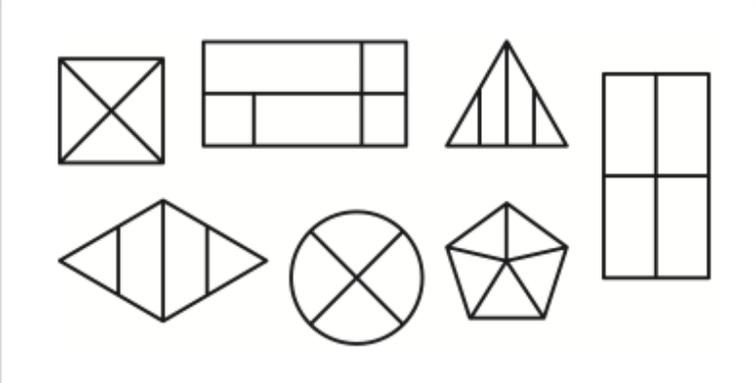
	<p>I can provide complete and clear explanations of my thinking and work.  I can decide if other students' explanations make sense; clarify or improve other students' arguments.  I can use counterexamples when appropriate.</p>		
Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<b>3.NF.1</b> <b>3.NF.2</b> <b>3.NF.3</b> <b>(3.NF.A)</b>	<p><b>Strand: Number and Operations—Fractions</b></p> <p>Third grade students develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8 in third grade.</p> <p><b>Standard 3.NF.1</b> Understand that a unit fraction has a numerator of one and a non-zero denominator.</p> <ol style="list-style-type: none"> <li>Understand a fraction <math>1/b</math> as the quantity formed by one part, when a whole is partitioned into <math>b</math> equal parts.</li> <li>Understand a fraction <math>a/b</math> as the quantity formed by <math>a</math> parts of size <math>1/b</math>. <i>For example:</i> <math>1/4 + 1/4 + 1/4 = 3/4</math>.</li> </ol> <p><b>Standard 3.NF.2</b> Understand a fraction as a number on the number line; represent fractions on a number line diagram.</p> <ol style="list-style-type: none"> <li>Represent a fraction <math>1/b</math> on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into <math>b</math> equal parts. Recognize that each part has size <math>1/b</math> and that the endpoint of the part based at 0 locates the number <math>1/b</math> on the number line.</li> <li>Represent a fraction <math>a/b</math> on a number line diagram by marking off <math>a</math> lengths <math>1/b</math> from 0. Recognize that the resulting interval has size <math>a/b</math> and that its endpoint locates the number <math>a/b</math> on the number line.</li> </ol> <p><b>Standard 3.NF.3</b> Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <ol style="list-style-type: none"> <li>Understand two fractions as equivalent if they are the same or the same point on a number line.</li> </ol>	<p><b>Topic 13. Fraction Equivalence and Comparison</b> (pp. 669I-669K)</p> <p><b>13-1</b> Equivalent Fractions: Use Models (pp. 673-678)</p> <p><b>13-2</b> Equivalent Fractions: Use the Number Line (pp. 679-684)</p> <p><b>13-3</b> Use Models to Compare Fractions: Same Denominator (pp. 685-690)</p> <p><b>13-4</b> Use Models to Compare Fractions: Same Numerator (pp. 691-696)</p> <p><b>13-5</b> Compare Fractions: Use Benchmarks (pp. 697-702)</p> <p><b>13-6</b> Compare Fractions: Use the Number Line (pp. 703-708)</p> <p><b>13-7</b> Whole Numbers and Fractions (pp. 709-714)</p> <p><b>13-8 Math Practices and Problem Solving: Construct Arguments</b> (pp. 715-720)</p>	<p><b>Topic 13:</b></p> <ul style="list-style-type: none"> <li>equivalent fractions</li> </ul>

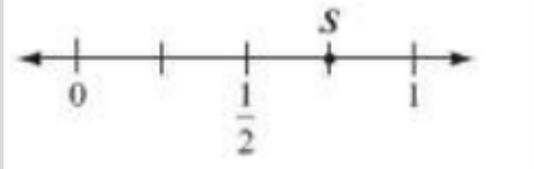
- b. Recognize and generate simple equivalent fractions, such as  $1/2 = 2/4$ ,  $4/6 = 2/3$ . *Explain why the fractions are equivalent by using a visual fraction model, for example.*
- c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *For example, express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.*
- d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. *Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, for example, by using a visual fraction model.*

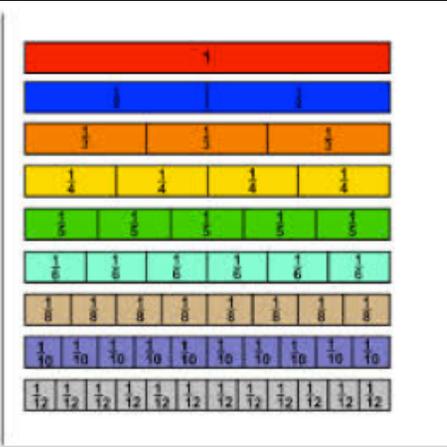
**Assessment Options:**

**Topic 13 Assessment** – Fraction Equivalence and Comparison (*print or online*) (pp. 727-730)  
**Topic 13 Performance Assessment** - Fraction Equivalence and Comparison (pp. 731-732)

**Assessment Tasks – Topic 13**

	<b>Procedural Check</b>	<b>Application Task</b>
<p><b>3.MD.4</b></p>	<p>Kyle’s team measured the lengths of each person’s right foot. They recorded the following data:                      Ben: - 6 inches                      Rod – 5 <math>\frac{1}{4}</math> inches                      Terrell - 5 <math>\frac{3}{4}</math> inches                      Jaron – 6 <math>\frac{1}{2}</math> inches</p> <p>Represent this data on a graph.</p> <p>(DOK 2)</p>	<p>Use an inch ruler to measure the following objects to the nearest <math>\frac{1}{2}</math> inch: a crayon, a pen, and a pencil. Use a number line to represent each measurement.                      (DOK 2)</p> <p>How long is this nail? Use words and numbers to justify your answer?</p>  <p>(DOK 3)</p>
<p><b>3.NF.1</b></p>	<p>Draw figures that show the following fractions:</p> <p align="center"><math>\frac{1}{3}, \frac{1}{4}, \frac{1}{8}</math></p> <p>(DOK 2)</p>	 <p>Draw each figure from above that represents <math>\frac{1}{4}</math>.                      For the shapes that do not show <math>\frac{1}{4}</math>, write the reason why.</p> <p>(DOK 3)</p> <p>Draw an example of <math>\frac{1}{3}</math>                      This is an example of <math>\frac{1}{3}</math> because _____.</p>

		<p>Draw a non-example of <math>\frac{1}{3}</math>  This is a non-example of <math>\frac{1}{3}</math> because _____.</p> <p>(DOK 3)</p>
<p><b>3.NF.2</b></p>	<p>Show <math>\frac{1}{4}</math> on a number line.</p> <p>Show <math>\frac{3}{8}</math> on a number line.</p> <p>Name the fraction shown on the number line.</p>  <p>(DOK 2)</p>	<p>You have a piece of licorice. You need to cut it into three equal parts to share with your friends. On a number line, show where you would cut it and label to show what fraction of the licorice each person would get.</p> <p>An inchworm reached its full size of an inch by growing a <math>\frac{1}{4}</math> of an inch each month. On the number line, draw the inchworm after three months.</p> <p>Use pictures and words to justify your thinking on the two problems above.</p> <p>(DOK 3)</p>
<p><b>3.NF.3a</b></p>	<p>Use the fraction bars to determine if the following pairs of fractions are equivalent. Write equivalent after each pair of equivalent fractions.</p> <p><math>\frac{2}{3}</math> and <math>\frac{3}{4}</math> _____</p> <p><math>\frac{1}{2}</math> and <math>\frac{3}{6}</math> _____</p> <p><math>\frac{6}{12}</math> and <math>\frac{3}{4}</math> _____</p> <p>(DOK 2)</p>	<p>Mr. Kramer had two chocolate bars hidden in paper bags. He asked his students whether they would like <math>\frac{2}{4}</math> of the bar in the bag on the right or <math>\frac{1}{2}</math> of the bar in the bag on the left. Skye said that it didn't matter because the fractions were equivalent. Braden disagreed because he couldn't see the size of the bars. Which student is right? Use words and pictures to explain your reasoning.</p> <p>(DOK 3)</p>



(DOK 1)

**3.NF.3b**

Draw a model of a fraction that represents  $\frac{1}{3}$ . Show how that same model could also represent  $\frac{2}{6}$ .

(DOK 2)

Make a list of 5 fractions that are equal to  $\frac{1}{2}$ . Then create picture models to prove your answers.

(DOK 3)

**3.NF.3c**

Write the following whole numbers as fractions.

- 5 =
- 9 =
- 13 =

(DOK 1)

Write two fractions equivalent to 1 whole. Use pictures and words to justify your answer.

(DOK 3)

**3.NF.3d**

Compare the fractions using the symbols  $<$ ,  $>$ , or  $=$ .

$$\frac{3}{4} \square \frac{1}{4}$$

$$\frac{2}{8} \square \frac{7}{8}$$

$$\frac{3}{4} \square \frac{3}{9}$$

(DOK 2)

Compare the two fractions using the symbols  $<$ ,  $>$ , or  $=$ . Then justify your answer with numbers, pictures and or words.

$$\frac{3}{4} \square \frac{1}{4}$$

$$\frac{3}{4} \square \frac{3}{9}$$

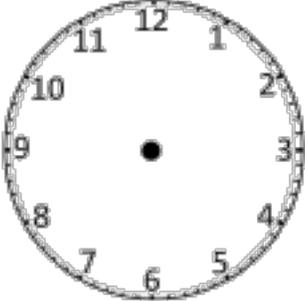
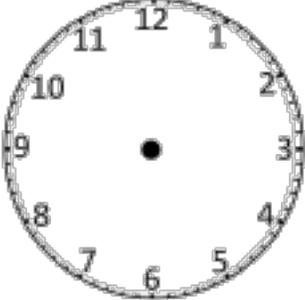
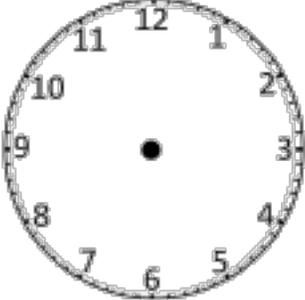
(DOK 3)

**MEASUREMENT AND DATA (MD)**  
**Topic 14 - Solve Time, Capacity, and Mass Problems**

<b>Report Card Learning Targets</b> <b>I can....</b> <ul style="list-style-type: none"> <li>Solve problems involving time intervals to the nearest minute</li> <li>Solve problems involving volume and mass</li> </ul>		
<b>TOPIC 14</b>		
<b>Coherence</b>		<b>pp. 733C-733D</b>
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>Tell Time</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>Solve Word Problems</li> </ul>	<b>Topic 14:</b> <ul style="list-style-type: none"> <li>Measurement</li> <li>Solve Word Problems</li> </ul>	<b>Look Ahead:</b> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>Time</li> <li>Equivalence in Units of Measure</li> </ul>
<b>Rigor</b>		<b>p. 733E</b>
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>Time</li> <li>Liquid Volume</li> <li>Mass</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>Time</li> <li>Liquid Volume</li> <li>Mass</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>Addition and Subtraction Situations</li> <li>Multiplication and Division Situations</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standard #2</b>	
<b>3.MP.2</b>	<p><b>Reason abstractly and quantitatively.</b>                  Make sense of quantities and their relationships in problem situations. Contextualize quantities and operations by using images or stories. Decontextualize a given situation and represent it symbolically. Interpret symbols as having meaning, not just as directions to carry out a procedure. Know and flexibly use different properties of operations, numbers, and geometric objects.</p> <p><b><i>Third grade students use reasoning to analyze relationships between hours and minutes in elapsed time problems.</i></b></p> <ul style="list-style-type: none"> <li>I can identify and understand the quantities in the problem.</li> <li>I can show and explain how quantities are related (e.g., bar diagram).</li> <li>I can translate real-world contexts correctly to numbers, expressions, equations, or concrete or pictorial representations.</li> <li>I can connect numbers, expressions, equations, or concrete or pictorial representations back to real-world contexts.</li> </ul>	

Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<p><b>3.MD.1</b> <b>3.MD.2</b> <b>(3.MD.A)</b></p>	<p><b>Strand: Measurement and Data</b></p> <p>Third grade students will solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.</p> <p><b>Standard 3.MD.1</b> Tell and write time to the nearest minute and measure time intervals in minutes. <i>Solve word problems involving addition and subtraction of time intervals in minutes, for example, by representing the problem on a number line diagram.</i></p> <p><b>Standard 3.MD.2</b> Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), milliliters (ml), and liters (l). (Excludes compound units such as cubic centimeters (cc or cm<sup>3</sup>) and finding the geometric volume of a container). <i>Add, subtract, multiply, or divide to solve one-step word problems involving masses of objects or volumes of liquids that are given in the same units, for example, by using drawings (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems.)</i></p>	<p><b>Topic 14: Solve Time, Capacity, and Mass Problems</b> (pp. 733I-733K)</p> <p><b>14-1</b> Time to the Minute (pp. 739-744)  <b>14-2</b> Units of Time: Measure Elapsed Time (pp. 745-750)  <b>14-3</b> Units of Time: Solve Word Problems (pp. 751-756)  <b>14-4</b> Estimate Liquid Volume (pp. 757-762)  <b>14-5</b> Measure Liquid Volume (pp. 763-768)  <b>14-6</b> Estimate Mass (pp. 769-774)  <b>14-7</b> Measure Mass (pp. 775-780)  <b>14-8</b> Solve Word Problems Involving Mass and Liquid Volume (pp. 781-786)  <b>14-9 Math Practices and Problem Solving: Reasoning</b> (pp. 787-792)</p>	<p><b>Topic 14:</b></p> <ul style="list-style-type: none"> <li>• elapsed time</li> <li>• A.M., P.M.</li> <li>• time interval</li> <li>• capacity (liquid volume)</li> <li>• milliliter (mL)</li> <li>• liter (L)</li> <li>• mass</li> <li>• gram (g)</li> <li>• kilogram (kg)</li> </ul>
	<p><b>Assessment Options:</b></p>	<p><b>Topic 14 Assessment – Solve Time, Capacity, and Mass Problems</b> (print or online) (pp. 799-802)  <b>Topic 14 Performance Assessment - Solve Time, Capacity, and Mass Problems</b> (pp. 803-804)</p>	

Assessment Tasks – Topic 14

	Procedural Check	Application Task
<p><b>3.MD.1</b></p>	<p>Draw the hands on each clock to show the time. (DOK 1)</p> <div style="text-align: center;">  <p>3:15</p>  <p>10:00</p>  <p>6:45</p> </div>	<p>Paul recorded his reading minutes every night. On Wednesday, he began reading at 6:10. He read for 35 minutes. At what time did Paul finish reading? Draw clocks to show the time that he started reading and the time that he stopped reading.</p> <p>(DOK 2)</p> <p>Claudia’s dance class starts at 5:15 pm. She gets to her class 25 minutes early. What time does she get to class? Use a number line diagram to justify your answer.</p> <p>(DOK 3)</p>
<p><b>3.MD.2</b></p>	<p>Circle the unit of measure would you use to measure the mass of a bicycle? Gram    Kilogram</p> <p>(DOK 1)</p>	<p>Thad said that his aquarium held 27 milliliters of water. Is this a reasonable measurement? Explain your answer.</p> <p>(DOK 3)</p>

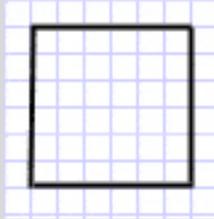
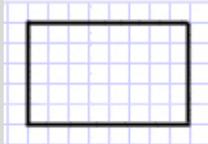
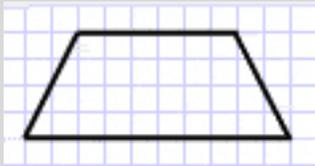
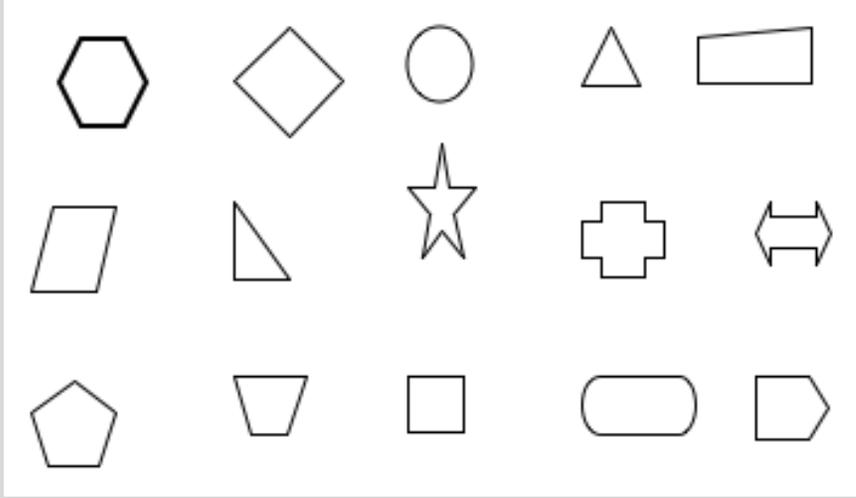
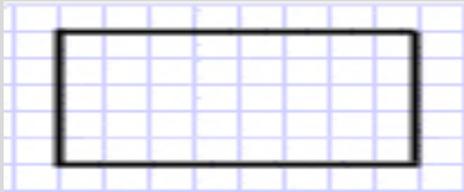
## GEOMETRY (G)

## Topic 15 - Attributes of Two-Dimensional Shapes

<b>Report Card Learning Targets</b> <b>I can....</b> <ul style="list-style-type: none"> <li>Understand quadrilaterals and their attributes</li> <li>Divide shapes into equal areas</li> </ul>		
<b>TOPIC 15</b>		
<b>Coherence</b>		<b>pp. 805C-805D</b>
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>Attributes of Polygons</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>Area of Shapes</li> <li>Fractions and Shapes</li> </ul>	<b>Topic 15:</b> <ul style="list-style-type: none"> <li>From Shapes to Groups of Shapes</li> <li>From Finding Larger Categories to Finding Smaller Categories</li> <li>Connection to Area Concepts</li> </ul>	<b>Look Ahead:</b> <b>Later in Grade 3-</b> <ul style="list-style-type: none"> <li>Perimeter and Area of Shapes</li> </ul> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>Classify Shapes</li> </ul>
<b>Rigor</b>		<b>p. 805E</b>
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>Recognize Two-Dimensional Shapes</li> <li>Classify, Analyze, and Compare Shapes</li> </ul>	<b>Procedural Skill and Fluency:</b> There are no standards that call for fluency in this cluster and there are no procedural skills.	<b>Applications:</b> <ul style="list-style-type: none"> <li>Real-World Contexts</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standard #6</b>	
<b>3.MP.6</b>	<b>Attend to precision.</b> Communicate precisely to others by crafting careful explanations that communicate mathematical reasoning by referring specifically to each important mathematical element, describing the relationships among them, and connecting their words clearly to their representations. Calculate accurately and efficiently, and use clear and concise notation to record their work. <b><i>Third grade students attend to precision by creating shapes that can be classified based on specific attributes.</i></b> I can compute accurately. I can use symbols appropriately. I can accurately use problem-solving strategies. I can specify and use units of measure appropriately. I can decide whether an exact answer or estimate is needed. I can calculate efficiently, accurately, and fluently.	

Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<p><b>3.G.1</b> <b>3.G.2</b> <b>(3.G.A)</b></p>	<p><b>Strand: Geometry</b></p> <p>Third grade students will reason with shapes and their attributes.</p> <p><b>Standard 3.G.1</b> Understand that shapes in different categories (<i>for example, rhombuses, rectangles, and others</i>) may share attributes (<i>for example, having four sides</i>), and that the shared attributes can define a larger category (<i>for example, quadrilaterals</i>). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.</p> <p><b>Standard 3.G.2</b> Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into four parts with equal area, and describe the area of each part as 1/4 of the area of the shape.</i></p>	<p><b>Topic 15: Attributes of Two-Dimensional Shapes</b> (<i>pp. 805I-805J</i>)</p> <p><b>15-1</b> Describe Quadrilaterals (<i>pp. 811-816</i>)</p> <p><b>15-2</b> Classify Shapes (<i>pp. 817-822</i>)</p> <p><b>15-3</b> Analyze and Compare Quadrilaterals (<i>pp. 823-828</i>)</p> <p><b>15-4 Math Practices and Problem Solving: Precision</b> (<i>pp. 829-834</i>)</p>	<p><b>Topic 15:</b></p> <ul style="list-style-type: none"> <li>• polygon</li> <li>• side</li> <li>• quadrilateral</li> <li>• angle</li> <li>• vertex</li> <li>• trapezoid</li> <li>• parallel sides</li> <li>• parallelogram</li> <li>• rectangle</li> <li>• right angle</li> <li>• rhombus</li> <li>• square</li> <li>• convex</li> <li>• concave</li> </ul>
	<p><b>Assessment Options:</b></p>	<p><b>Topic 15 Assessment</b> – Attributes of Two-Dimensional Shapes (<i>print or online</i>) (<i>pp. 839-840</i>)</p> <p><b>Topic 15 Performance Assessment</b> – Attributes of Two-Dimensional Shapes (<i>pp. 841-842</i>)</p>	

Assessment Tasks – Topic 15

	Procedural Check	Application Task
<p><b>3.G.1</b></p>	<p>Use the following terms to label each shape.                      Rectangle, trapezoid, rhombus, square. (DOK 1)</p>    	<p>Create a picture book that you could use to teach a friend the difference between a rhombus, rectangle, square, and a trapezoid.                      (DOK 3)</p> <p>Use your understanding of quadrilaterals to identify which of the shapes shown below are quadrilaterals. Use words and labels to explain your choices. (DOK 3)</p> 
<p><b>3.G.2</b></p>	<p>Draw lines on the rectangle to show 4 equal parts.</p>  <p>(DOK 1)</p>	<p>Reggie’s birthday cake was shaped like a rectangle. All together, 8 people were going to share the cake. Draw a picture of Reggie’s cake and show how he cut the cake so that everyone had an equal share of the whole cake.                      (DOK 3)</p> <p>What if 5 people were sharing the same cake? Would the pieces be larger or smaller? Use pictures to justify your answer</p>

MEASUREMENT AND DATA (MD)  
Topic 16 - Solve Perimeter Problems

<b>Report Card Learning Targets</b> <b>I can....</b> <ul style="list-style-type: none"> <li>Understand and apply area and perimeter</li> </ul>		
<b>TOPIC 16</b>		
<b>Coherence</b>		<b>pp. 843C-843D</b>
<b>Look back:</b> <b>Grade 2-</b> <ul style="list-style-type: none"> <li>Measure Length</li> <li>Relate Addition and Subtraction to Length</li> </ul> <b>Earlier in Grade 3-</b> <ul style="list-style-type: none"> <li>Find Area</li> </ul>	<b>Topic 16:</b> <ul style="list-style-type: none"> <li>Use Appropriate Tools to Identify Perimeter and Area</li> <li>Use Equations to Represent Perimeter</li> </ul>	<b>Look Ahead:</b> <b>Grade 4-</b> <ul style="list-style-type: none"> <li>Perimeter and Area Formulas</li> </ul>
<b>Rigor</b>		<b>p. 843E</b>
<b>Conceptual Understanding:</b> <ul style="list-style-type: none"> <li>Understand Perimeter as an Attribute of Polygons</li> <li>Distinguish Between Perimeter and Area</li> </ul>	<b>Procedural Skill and Fluency:</b> <ul style="list-style-type: none"> <li>Use Addition and Multiplication to Compute Perimeter</li> </ul>	<b>Applications:</b> <ul style="list-style-type: none"> <li>Real-World Applications</li> </ul>
<b>Focus</b>	<b>Strand: Mathematical Practice Standard #2</b>	
<b>3.MP.2</b>	<b>p. 843F</b>	
	<b>Reason abstractly and quantitatively.</b> Make sense of quantities and their relationships in problem situations. Contextualize quantities and operations by using images or stories. Decontextualize a given situation and represent it symbolically. Interpret symbols as having meaning, not just as directions to carry out a procedure. Know and flexibly use different properties of operations, numbers, and geometric objects. <i><b>Third grade students use reasoning to determine how to use addition and multiplication to find perimeters of shapes.</b></i> I can identify and understand the quantities in the problem. I can show and explain how quantities are related (e.g., bar diagram). I can translate real-world contexts correctly to numbers, expressions, equations, or concrete or pictorial representations. I can connect numbers, expressions, equations, or concrete or pictorial representations back to real-world contexts.	

Focus	Standards	Curriculum Supports – enVision 2.0	Vocabulary
<b>3.MD.8 (3.MD.D)</b>	<p><b>Strand: Measurement and Data</b></p> <p>Third grade students will recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.</p> <p><b>Standard 3.MD.8</b> Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.</p>	<p><b>Topic 16: Solve Perimeter Problems</b> (pp. 843I-843J)</p> <p><b>16-1</b> Understand Perimeter (pp. 847-852)</p> <p><b>16-2</b> Perimeter of Common Shapes (pp. 853-858)</p> <p><b>16-3</b> Perimeter and Unknown Side Lengths (pp. 859-864)</p> <p><b>16-4</b> Same Perimeter, Different Area (pp. 865-870)</p> <p><b>16-5</b> Same Area, Different Perimeter (pp. 871-876)</p> <p><b>16-6 Math Practices and Problem Solving: Reasoning</b> (pp. 877-882)</p>	<p><b>Topic 16:</b></p> <ul style="list-style-type: none"> <li>• perimeter</li> <li>• equilateral triangle</li> </ul>
	<p><b>Assessment Options:</b></p>	<p><b>Topic 16 Assessment</b> – Solve Perimeter Problems (<i>print or online</i>) (pp. 887-888)</p> <p><b>Topic 15 Performance Assessment</b> – Solve Perimeter Problems (pp. 889-890)</p>	

**Math Exemplars-** Utilize both Summative Assessment Task and Instructional Tasks/Formative Assessments

**Number and Operations – Fractions**

- 3.NF.A.1 & 3

**Measurement and Data**

- 3.MD.A.1
- 3.MD.D.8

**Geometry**

- 3.G.A.1 & 2

**District Wide Standards-based Benchmark #4 due by June 6**

Assessment Tasks – Topic 16

	Procedural Check	Application Task
<b>3.MD.8</b>	<p>A 4 –sided polygon has a perimeter of 26 cm. Side A = 11 cm, Side B = 4 cm, Side C = 3 cm. What is the measurement of Side D.</p> <p>(DOK 2)</p>	<p>Jorge drew two plans for a garden. Each rectangle had an area of 24 but one plan required more fencing than the other. Explain why this was true. Use a drawing to justify your answer.</p> <p>(DOK 3)</p>

### 3rd Grade Additional Assessment Tasks

<p><b>3.OA.2</b></p>	<p>Draw a picture for each problem.            18 CD's in 9 packages            12 markers for 2 people            25 people in teams of 5            24 cupcakes in boxes of 4</p> <p>(DOK 2)</p>	<p>A class of 32 students was divided equally into teams for a relay race. Each relay team had 4 students. How many relay teams were there? Use words and pictures to justify your answer. (DOK 3)</p> <p>A teacher gave out 27 pencils to 9 students. Each student got the same number of pencils.            How many pencils did each student get?            Use words and pictures to justify your answer.            (DOK 3)</p>
<p><b>3.OA.3</b></p>	<p>Represent each equation.  <math>42 \div n = 7</math>  <math>54 \div 9 = n</math></p> <p>(DOK 2)</p>	<p>The soccer team had 28 soccer balls. Each bag holds 7 balls. Will 3 bags be enough? Draw a picture to justify your answer.</p> <p>(DOK 3)</p>
<p><b>3.OA.3</b></p>	<p>Use a drawing to represent each problem.  <math>2 \times 6 = n</math>            Solve: <math>5 \times 8</math>            What is the product of 2 and 9?            (DOK 1)</p>	<p>Karla had nine nickels. Does she have enough money to buy a ticket for 50 cents? Use a drawing to justify your answer.</p> <p>(DOK 3)</p>
<p><b>3.OA.3</b></p>	<p>Draw an array that represents each equation.  <math>6 \times n = 54</math>  <math>n \times 7 = 49</math></p> <p>(DOK 2)</p>	<p><i>Draw a picture to represent the following problem.</i>            Pam had 56 beads and wanted make 7 bracelets. Each bracelet needed an equal number of beads.            Write an equation for this problem.            (DOK 3)</p> <p>A bakery puts 3 chocolate and 3 vanilla cupcakes in a box. Use this information to answer the following questions.            How many cupcakes will be sold if they sell 6 boxes?            How many boxes do they need to sell if they want to sell a total of 24 cupcakes?            How many chocolate cupcakes will be sold if 5 boxes are sold?            Use words, pictures, and numbers to justify each answer.            (DOK 3)</p>

<b>3.OA.3</b>	Represent each equation. $42 \div n = 7$ $54 \div 9 = n$  (DOK 2)	The soccer team had 28 soccer balls. Each bag holds 7 balls. Will 3 bags be enough? Draw a picture to justify your answer.  (DOK 3)
<b>3.OA.3</b>	Using 3, 7, and 21, represent each multiplication and division fact and write the equation.  (DOK 2)	Mr. Carr said that he likes having 24 students in his class because he can make so many different groups. How many ways can Mr. Carr group his class? Use drawings to justify your answer.  (DOK 3)
<b>3.OA.4</b>	Write the missing numbers. $12 \div 3 = \underline{\quad}$ $12 \div \underline{\quad} = 3$ $35 \div 7 = \underline{\quad}$ $35 \div n = 5$ (DOK 1)	Write equations for the following stories. 36 cars parked in 4 rows 45 books on 5 shelves 18 students in 2 rows Use pictures to justify your equations. (DOK 3)
<b>3.OA.4</b>	Write the missing numbers. $12 \div 3 = \underline{\quad}$ $12 \div \underline{\quad} = 3$ $35 \div 7 = \underline{\quad}$ $35 \div n = 5$ (DOK 1)	Write equations for the following stories. 36 cars parked in 4 rows 45 books on 5 shelves 18 students in 2 rows Use pictures to justify your equations. (DOK 3)
<b>3.OA.5</b>	Use $<$ , $>$ , or $=$ to compare each problem. $3 \times 5 \underline{\quad} (3 \times 2) + (3 \times 3)$ $7 \times 9 \underline{\quad} 9 \times 7$ $(8 \times 4) + (8 \times 4) \underline{\quad} 8 \times 8$ (DOK 2)	Carlos has 10 nickels. Kenna has 5 dimes. Who has more money? Use a drawing to justify your answer.  (DOK 3)
<b>3.OA.6</b>	Solve each equation. $30 \div 6 = 6 \times n$ $72 \div 8 = 8 \times n$ $56 \div 7 = 7 \times n$  (DOK 1)	Use 3, 5, and 15 to write, illustrate, and solve a division story problem.  (DOK 3)

<p><b>3.OA.7</b></p>	<p> <math>\frac{2}{x5}</math>   <math>\frac{5}{x3}</math>   <math>\frac{6}{x2}</math>   <math>\frac{5}{x5}</math>   <math>\frac{10}{x3}</math>   <math>\frac{3}{x2}</math>   <math>\frac{4}{x5}</math>   <math>\frac{6}{x10}</math>   <math>\frac{2}{x7}</math> </p> <p>(DOK 1)</p>	<p>Rick had 32 feet of rope for his scout project. He needed 8 equal sections but did not know how long to cut each one because he had only learned multiplication. How would you explain to Rick that he could use multiplication to solve a division problem?</p> <p>Use a drawing to justify your answer.</p> <p>(DOK 3)</p>	<p>Ric eq be ex div Us</p> <p>(D</p>																				
<p><b>3.OA.9</b></p>	<table border="1"> <thead> <tr> <th>Input</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>12</td> </tr> <tr> <td>9</td> <td>16</td> </tr> <tr> <td>13</td> <td>20</td> </tr> <tr> <td>15</td> <td>?</td> </tr> </tbody> </table> <p>What is the missing number?</p> <table border="1"> <thead> <tr> <th>Input</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>30</td> </tr> <tr> <td>7</td> <td>42</td> </tr> <tr> <td>8</td> <td>48</td> </tr> <tr> <td>9</td> <td>?</td> </tr> </tbody> </table> <p>What is the missing number?</p> <p>(DOK 2)</p>	Input	Output	5	12	9	16	13	20	15	?	Input	Output	5	30	7	42	8	48	9	?	<p>If Bailey receives \$5 a week for mowing a lawn, how much money does he have after 7 weeks? Show the pattern. Explain your thinking using pictures, words, or numbers.</p> <p>(DOK 2)</p>	
Input	Output																						
5	12																						
9	16																						
13	20																						
15	?																						
Input	Output																						
5	30																						
7	42																						
8	48																						
9	?																						
<p><b>3.NBT.1</b></p>	<p>Round each number to the nearest 10.</p> <p>42 57 614</p> <p>Round each number to the nearest 100.</p> <p>180 922 1539</p> <p>(DOK 1)</p>	<p>Write a number that rounds to 40 and explain your reasoning. Write a number that rounds to 100 and explain your reasoning. Use a number line to justify your answer. (DOK 3)</p> <p>If you were being asked to round to the nearest 10, what is the greatest number that would round to 50? What is the least number that would round to 50? Use a number line to justify your answer. (DOK 3)</p> <p>A three-digit number has the digits 3, 7, and 2. To the nearest hundred, it rounds to 300. What could the number be? Use a number line to justify your answer. (DOK 3)</p>																					



### **3<sup>rd</sup> Grade Mathematics • Unpacked Content**

For the new Common Core State Standards that will be effective in all North Carolina schools in the 2012-13 school year.

This document is designed to help North Carolina educators teach the Common Core (Standard Course of Study). NCDPI staff are continually updating and improving these tools to better serve teachers.

#### **What is the purpose of this document?**

To increase student achievement by ensuring educators understand specifically what the new standards mean a student must know, understand and be able to do. This document may also be used to facilitate discussion among teachers and curriculum staff and to encourage coherence in the sequence, pacing, and units of study for grade-level curricula. This document, along with on-going professional development, is one of many resources used to understand and teach the CCSS.

#### **What is in the document?**

Descriptions of what each standard means a student will know, understand and be able to do. The “unpacking” of the standards done in this document is an effort to answer a simple question “What does this standard mean that a student must know and be able to do?” and to ensure the description is helpful, specific and comprehensive for educators.

#### **How do I send Feedback?**

We intend the explanations and examples in this document to be helpful and specific. That said, we believe that as this document is used, teachers and educators will find ways in which the unpacking can be improved and made ever more useful. Please send feedback to us at [feedback@dpi.state.nc.us](mailto:feedback@dpi.state.nc.us) and we will use your input to refine our unpacking of the standards. Thank You!

#### **Just want the standards alone?**

You can find the standards alone at <http://corestandards.org/the-standards>

## Standards for Mathematical Practices

The Common Core State Standards for Mathematical Practice are expected to be integrated into every mathematics lesson for all students Grades K-12. Below are a few examples of how these Practices may be integrated into tasks that students complete.

Mathematic Practices	Explanations and Examples
<b>1. Make sense of problems and persevere in solving them.</b>	In third grade, mathematically proficient students know that doing mathematics involves solving problems and discussing how they solved them. Students explain to themselves the meaning of a problem and look for ways to solve it. Third grade students may use concrete objects or pictures to help them conceptualize and solve problems. They may check their thinking by asking themselves, “Does this make sense?” Students listen to other students’ strategies and are able to make connections between various methods for a given problem.
<b>2. Reason abstractly and quantitatively.</b>	Mathematically proficient third grade students should recognize that a number represents a specific quantity. They connect the quantity to written symbols and create a logical representation of the problem at hand, considering both the appropriate units involved and the meaning of quantities.
<b>3. Construct viable arguments and critique the reasoning of others.</b>	In third grade, mathematically proficient students may construct arguments using concrete referents, such as objects, pictures, and drawings. They refine their mathematical communication skills as they participate in mathematical discussions that the teacher facilitates by asking questions such as “How did you get that?” and “Why is that true?” They explain their thinking to others and respond to others’ thinking.
<b>4. Model with mathematics.</b>	Mathematically proficient students experiment with representing problem situations in multiple ways including numbers, words (mathematical language), drawing pictures, using objects, acting out, making a chart, list, or graph, creating equations, etc. Students require extensive opportunities to generate various mathematical representations and to both equations and story problems, and explain connections between representations as well as between representations and equations. Students should be able to use all of these representations as needed. They should evaluate their results in the context of the situation and reflect on whether the results make sense.
<b>5. Use appropriate tools strategically.</b>	Mathematically proficient third grader students consider the available tools (including estimation) when solving a mathematical problem and decide when certain tools might be helpful. For instance, they may use graph paper to find all the possible rectangles that have a given perimeter. They compile the possibilities into an organized list or a table, and determine whether they have all the possible rectangles.
<b>6. Attend to precision.</b>	Mathematically proficient third grader students develop their mathematical communication skills, they try to use clear and precise language in their discussions with others and in their own reasoning. They are careful about specifying units of measure and state the meaning of the symbols they choose. For instance, when figuring out the area of a rectangle they record their answers in square units.
<b>7. Look for and make use of structure.</b>	In third grade mathematically proficient students look closely to discover a pattern or structure. For instance, students use properties of operations as strategies to multiply and divide (commutative and distributive properties).
<b>8. Look for and express regularity in repeated reasoning.</b>	Mathematically proficient students in third grade should notice repetitive actions in computation and look for more shortcut methods. For example, students may use the distributive property as a strategy for using products they know to solve products that they don’t know. For example, if students are asked to find the product of $7 \times 8$ , they might decompose 7 into 5 and 2 and then multiply $5 \times 8$ and $2 \times 8$ to arrive at $40 + 16$ or 56. In addition, third graders continually evaluate their work by asking themselves, “Does this make sense?”

## Grade 3 Critical Areas

The Critical Areas are designed to bring focus to the standards at each grade by describing the big ideas that educators can use to build their curriculum and to guide instruction. The Critical Areas for third grade can be found on page 21 in the *Common Core State Standards for Mathematics*.

**1. Developing understanding of multiplication and division and strategies for multiplication and division within 100.**

Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.

**2. Developing understanding of fractions, especially unit fractions (fractions with numerator 1).**

Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole. For example,  $\frac{1}{2}$  of the paint in a small bucket could be less paint than  $\frac{1}{3}$  of the paint in a larger bucket, but  $\frac{1}{3}$  of a ribbon is longer than  $\frac{1}{5}$  of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.

**3. Developing understanding of the structure of rectangular arrays and of area.**

Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same-size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area. Students understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area to multiplication, and justify using multiplication to determine the area of a rectangle.

**4. Describing and analyzing two-dimensional shapes.**

Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

# Operations and Algebraic Thinking

3.0A

## Common Core Cluster

### Represent and solve problems involving multiplication and division.

Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size.

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **products, groups of, quotients, partitioned equally, multiplication, division, equal groups, group size, arrays, equations, unknown**

Common Core Standard	Unpacking What do these standards mean a child will know and be able to do?
<p><b>3.OA.1</b> Interpret products of whole numbers, e.g., interpret <math>5 \times 7</math> as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as <math>5 \times 7</math>.</i></p>	<p>This standard interprets products of whole numbers. Students recognize multiplication as a means to determine the total number of objects when there are a specific number of groups with the same number of objects in each group or of an equal amount of objects were added or collected numerous times.. Multiplication requires students to think in terms of groups of things rather than individual things. Students learn that the multiplication symbol ‘x’ means “groups of” and problems such as <math>5 \times 7</math> refer to 5 groups of 7.</p> <p>Example: Jim purchased 5 packages of muffins. Each package contained 3 muffins. How many muffins did Jim purchase? 5 groups of 3, <math>5 \times 3 = 15</math>. Describe another situation where there would be 5 groups of 3 or <math>5 \times 3</math>.</p> <p>Sonya earns \$7 a week pulling weeds. After 5 weeks of work, how much has Sonya worked? Write an equation and find the answer. Describe another situation that would match <math>7 \times 5</math>.</p>
<p><b>3.OA.2</b> Interpret whole-number quotients of whole numbers, e.g., interpret <math>56 \div 8</math> as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. <i>For example, describe a context in which a number of shares or a number</i></p>	<p>This standard focuses on two distinct models of division: partition models and measurement (repeated subtraction) models.</p> <p>Partition models provide students with a total number and the number of groups. These models focus on the question, “How many objects are in each group so that the groups are equal?” A context for partition models would be: There are 12 cookies on the counter. If you are sharing the cookies equally among three bags, how many cookies will go in each bag?</p> <p>Measurement (repeated subtraction) models provide students with a total number and the number of objects in each group. These models focus on the question, “How many equal groups can you make?” A context for measurement</p>

of groups can be expressed as  $56 \div 8$ .

models would be: There are 12 cookies on the counter. If you put 3 cookies in each bag, how many bags will you fill?



**3.OA.3** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.<sup>1</sup>

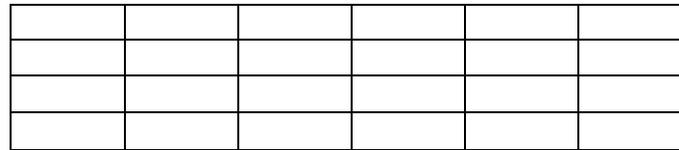
This standard references various problem solving context and strategies that students are expected to use while solving word problems involving multiplication & division. Students should use a variety of representations for creating and solving one-step word problems, such as: If you divide 4 packs of 9 brownies among 6 people, how many cookies does each person receive? ( $4 \times 9 = 36$ ,  $36 \div 6 = 6$ ).  
Glossary page 89, Table 2 (table also included at the end of this document for your convenience) gives examples of a variety of problem solving contexts, in which students need to find the product, the group size, or the number of groups. Students should be given ample experiences to explore all of the different problem structures.

<sup>1</sup> See Glossary, Table 2. (page 89)  
(Table included at the end of this document for your convenience)

Examples of multiplication:

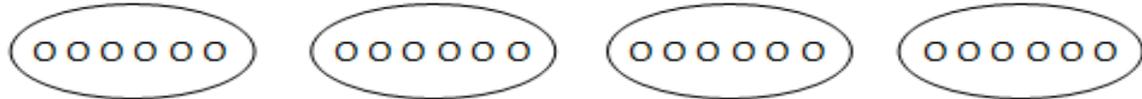
There are 24 desks in the classroom. If the teacher puts 6 desks in each row, how many rows are there?

This task can be solved by drawing an array by putting 6 desks in each row. This is an array model



This task can also be solved by drawing pictures of equal groups.

4 groups of 6 equals 24 objects



A student can also reason through the problem mentally or verbally, “I know 6 and 6 are 12. 12 and 12 are 24. Therefore, there are 4 groups of 6 giving a total of 24 desks in the classroom.”

A number line could also be used to show equal jumps.

Students in third grade should use a variety of pictures, such as stars, boxes, flowers to represent unknown numbers (variables). Letters are also introduced to represent unknowns in third grade.

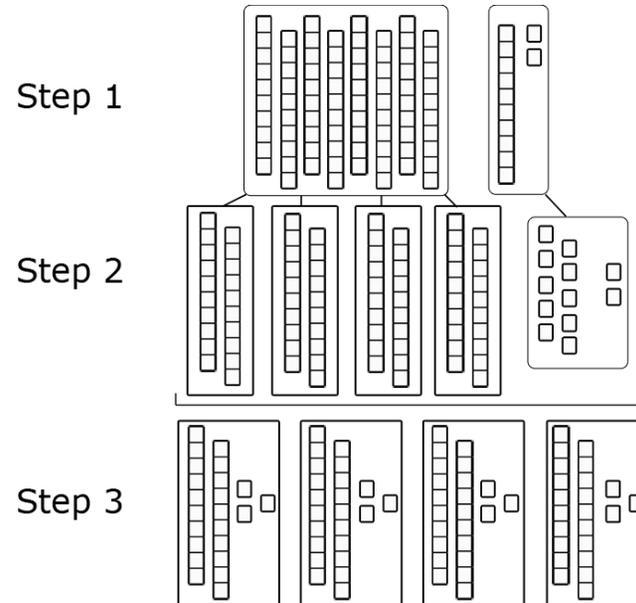
Examples of Division:

There are some students at recess. The teacher divides the class into 4 lines with 6 students in each line. Write a division equation for this story and determine how many students are in the class ( $\square \div 4 = 6$ . *There are 24 students in the class*).

Determining the number of objects in each share (partition model of division, where the size of the groups is unknown):

Example:

The bag has 92 hair clips, and Laura and her three friends want to share them equally. How many hair clips will each person receive?



Determining the number of shares (measurement division, where the number of groups is unknown)

Example:

Max the monkey loves bananas. Molly, his trainer, has 24 bananas. If she gives Max 4 bananas each day, how many days will the bananas last?

Starting	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
24	$24 - 4 = 20$	$20 - 4 = 16$	$16 - 4 = 12$	$12 - 4 = 8$	$8 - 4 = 4$	$4 - 4 = 0$

Solution: The bananas will last for 6 days.

**3.OA.4** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations  $8 \times ? = 48$ ,  $5 = \_ \div 3$ ,  $6 \times 6 = ?$*

This standard refers to Glossary page 89, Table 2 (table also included at the end of this document for your convenience) and equations for the different types of multiplication and division problem structures. The easiest problem structure includes Unknown Product ( $3 \times 6 = ?$  or  $18 \div 3 = 6$ ). The more difficult problem structures include Group Size Unknown ( $3 \times ? = 18$  or  $18 \div 3 = 6$ ) or Number of Groups Unknown ( $? \times 6 = 18$ ,  $18 \div 6 = 3$ ). The focus of 3.OA.4 extend beyond the traditional notion of *fact families*, by having students explore the inverse relationship of multiplication and division.

Students extend work from eliar grades with their understanding of the meaning of the equal sign as “the same amount as” to interpret an equation with an unknown. When given  $4 \times ? = 40$ , they might think:

- 4 groups of some number is the same as 40
- 4 times some number is the same as 40
- I know that 4 groups of 10 is 40 so the unknown number is 10
- The missing factor is 10 because 4 times 10 equals 40.

Equations in the form of  $a \times b = c$  and  $c = a \times b$  should be used interchangeably, with the unknown in different positions.

Example:

Solve the equations below:

$$24 = ? \times 6$$

$$72 \div \triangle = 9$$

Rachel has 3 bags. There are 4 marbles in each bag. How many marbles does Rachel have altogether?  $3 \times 4 = m$

## Common Core Cluster

### Understand properties of multiplication and the relationship between multiplication and division.

Students use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **operation, multiply, divide, factor, product, quotient, strategies, (properties)-rules about how numbers work**

Common Core Standard	Unpacking What do these standards mean a child will know and be able to do?																																				
<p><b>3.OA.5</b> Apply properties of operations as strategies to multiply and divide.<sup>2</sup>  <i>Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known.</i>  <i>(Commutative property of multiplication.) <math>3 \times 5 \times 2</math> can be found by <math>3 \times 5 = 15</math>, then <math>15 \times 2 = 30</math>, or by <math>5 \times 2 = 10</math>, then <math>3 \times 10 = 30</math>.</i>  <i>(Associative property of multiplication.)</i>  <i>Knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, one can find <math>8 \times 7</math> as <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56</math>.</i>  <i>(Distributive property.)</i></p> <p><sup>2</sup> Students need not use formal terms for these properties.</p>	<p>This standard references properties (rules about how numbers work) of multiplication. This extends past previous expectations, in which students were asked to identify properties. While students DO NOT need to not use the formal terms of these properties, student must understand that properties are rules about how numbers work, and they need to be flexibly and fluently applying each of them in various situations. Students represent expressions using various objects, pictures, words and symbols in order to develop their understanding of properties. They multiply by 1 and 0 and divide by 1. They change the order of numbers to determine that the order of numbers does not make a difference in multiplication (but does make a difference in division). Given three factors, they investigate changing the order of how they multiply the numbers to determine that changing the order does not change the product. They also decompose numbers to build fluency with multiplication.</p> <p>The associative property states that the sum or product stays the same when the grouping of addends or factors is changed. For example, when a student multiplies <math>7 \times 5 \times 2</math>, a student could rearrange the numbers to first multiply <math>5 \times 2 = 10</math> and then multiply <math>10 \times 7 = 70</math>.</p> <p>The commutative property (order property) states that the order of numbers does not matter when you are adding or multiplying numbers. For example, if a student knows that <math>5 \times 4 = 20</math>, then they also know that <math>4 \times 5 = 20</math>. The array below could be described as a <math>5 \times 4</math> array for 5 columns and 4 rows, or a <math>4 \times 5</math> array for 4 rows and 5 columns. There is no “fixed” way to write the dimensions of an array as rows x columns or columns x rows. Students should have flexibility in being able to describe both dimensions of an array.  Example:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p><math>4 \times 5</math> or <math>5 \times 4</math></p> <table border="1" style="border-collapse: collapse; width: 60px; height: 60px;"> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> </div> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; width: 60px; height: 60px;"> <tr><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> </table> <p><math>4 \times 5</math> or <math>5 \times 4</math></p> </div> </div>																																				

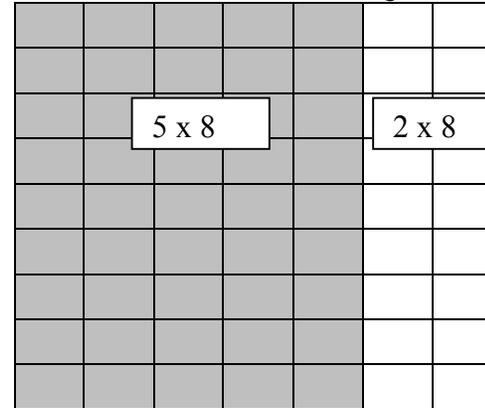
Students are introduced to the distributive property of multiplication over addition as a strategy for using products they know to solve products they don't know. Students would be using mental math to determine a product. Here are ways that students could use the distributive property to determine the product of  $7 \times 6$ . Again, students should use the distributive property, but can refer to this in informal language such as "breaking numbers apart".

Student 1
$7 \times 6$
$7 \times 5 = 35$
$7 \times 1 = 7$
$35 + 7 = 42$

Student 2
$7 \times 6$
$7 \times 3 = 21$
$7 \times 3 = 21$
$21 + 21 = 42$

Student 3
$7 \times 6$
$5 \times 6 = 30$
$2 \times 6 = 12$
$30 + 12 = 42$

Another example if the distributive property helps students determine the products and factors of problems by breaking numbers apart. For example, for the problem  $7 \times 8 = ?$ , students can decompose the 7 into a 5 and 2, and reach the answer by multiplying  $5 \times 8 = 40$  and  $2 \times 8 = 16$  and adding the two products ( $40 + 16 = 56$ ).



To further develop understanding of properties related to multiplication and division, students use different representations and their understanding of the relationship between multiplication and division to determine if the following types of equations are true or false.

- $0 \times 7 = 7 \times 0 = 0$  (Zero Property of Multiplication)
- $1 \times 9 = 9 \times 1 = 9$  (Multiplicative Identity Property of 1)
- $3 \times 6 = 6 \times 3$  (Commutative Property)
- $8 \div 2 = 2 \div 8$  (Students are only to determine that these are not equal)
- $2 \times 3 \times 5 = 6 \times 5$
- $10 \times 2 < 5 \times 2 \times 2$
- $2 \times 3 \times 5 = 10 \times 3$

- $0 \times 6 > 3 \times 0 \times 2$

**3.OA.6** Understand division as an unknown-factor problem.  
*For example, find  $32 \div 8$  by finding the number that makes 32 when multiplied by 8.*

This standard refers the Glossary on page 89, Table 2 (table also included at the end of this document for your convenience) and the various problem structures. Since multiplication and division are inverse operations, students are expected to solve problems and explain their processes of solving division problems that can also be represented as unknown factor multiplication problems.

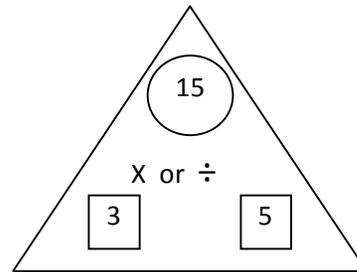
Example:

A student knows that  $2 \times 9 = 18$ . How can they use that fact to determine the answer to the following question: 18 people are divided into pairs in P.E. class? How many pairs are there? Write a division equation and explain your reasoning.

Multiplication and division are inverse operations and that understanding can be used to find the unknown. Fact family triangles demonstrate the inverse operations of multiplication and division by showing the two factors and how those factors relate to the product and/or quotient.

Examples:

- $3 \times 5 = 15$      $5 \times 3 = 15$
- $15 \div 3 = 5$      $15 \div 5 = 3$



Example:

Sarah did not know the answer to 63 divided by 7. Are each of the following was an appropriate way for Sarah to think about the problem? Explain why or why not with a picture or words for each one.

- “I know that  $7 \times 9 = 63$ , so 63 divided by 7 must be 9.”
- “I know that  $7 \times 10 = 70$ . If I take away a group of 7, that means that I have  $7 \times 9 = 63$ . So 63 divided by 7 is 9.”
- “I know that  $7 \times 5$  is 35. 63 minus 35 is 28. I know that  $7 \times 4 = 28$ . So if I add  $7 \times 5$  and  $7 \times 4$  I get 63. That means that  $7 \times 9$  is 63, or 63 divided by 7 is 9.”

## Common Core Cluster

### Multiply and divide within 100.

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **operation, multiply, divide, factor, product, quotient, unknown, strategies, reasonableness, mental computation, property**

#### Common Core Standard

**3.OA.7** Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

#### Unpacking

What do these standards mean a child will know and be able to do?

This standard uses the word fluently, which means accuracy, efficiency (using a reasonable amount of steps and time), and flexibility (using strategies such as the distributive property). “Know from memory” should not focus only on timed tests and repetitive practice, but ample experiences working with manipulatives, pictures, arrays, word problems, and numbers to internalize the basic facts (up to  $9 \times 9$ ).

By studying patterns and relationships in multiplication facts and relating multiplication and division, students build a foundation for fluency with multiplication and division facts. Students demonstrate fluency with multiplication facts through 10 and the related division facts. Multiplying and dividing fluently refers to knowledge of procedures, knowledge of when and how to use them appropriately, and skill in performing them flexibly, accurately, and efficiently.

Strategies students may use to attain fluency include:

- Multiplication by zeros and ones
- Doubles (2s facts), Doubling twice (4s), Doubling three times (8s)
- Tens facts (relating to place value,  $5 \times 10$  is 5 tens or 50)
- Five facts (half of tens)
- Skip counting (counting groups of \_\_\_ and knowing how many groups have been counted)
- Square numbers (ex:  $3 \times 3$ )
- Nines (10 groups less one group, e.g.,  $9 \times 3$  is 10 groups of 3 minus one group of 3)
- Decomposing into known facts ( $6 \times 7$  is  $6 \times 6$  plus one more group of 6)
- Turn-around facts (Commutative Property)
- Fact families (Ex:  $6 \times 4 = 24$ ;  $24 \div 6 = 4$ ;  $24 \div 4 = 6$ ;  $4 \times 6 = 24$ )
- Missing factors

Students should have exposure to multiplication and division problems presented in both vertical and horizontal forms.

Note that mastering this material, and reaching fluency in single-digit multiplications and related divisions with understanding, may be quite time consuming because there are no general strategies for multiplying or dividing all single-digit numbers as there are for addition and subtraction. Instead, there are many patterns and strategies dependent upon specific numbers. So it is imperative that extra time and support be provided if needed. (*Progressions for the CCSSM; Operations and Algebraic Thinking*, CCSS Writing Team, May 2011, page 22)

All of the understandings of multiplication and division situations (See Glossary, Table 2. (page 89) Table included at the end of this document for your convenience), of the levels of representation and solving, and of patterns need to culminate by the end of Grade 3 in fluent multiplying and dividing of all single-digit numbers and 10. Such fluency may be reached by becoming fluent for each number (e.g., the 2s, the 5s, etc.) and then extending the fluency to several, then all numbers mixed together. Organizing practice so that it focuses most heavily on understood but not yet fluent products and unknown factors can speed learning. To achieve this by the end of Grade 3, students must begin working toward fluency for the easy numbers as early as possible. Because an unknown factor (a division) can be found from the related multiplication, the emphasis at the end of the year is on knowing from memory all products of two one-digit numbers. As should be clear from the foregoing, this isn't a matter of instilling facts divorced from their meanings, but rather the outcome of a carefully designed learning process that heavily involves the interplay of practice and reasoning. All of the work on how different numbers fit with the base-ten numbers culminates in these "just know" products and is necessary for learning products. Fluent dividing for all single-digit numbers, which will combine just knows, knowing from a multiplication, patterns, and best strategy, is also part of this vital standard. (*Progressions for the CCSSM; Operations and Algebraic Thinking*, CCSS Writing Team, May 2011, page 27)

### Common Core Cluster

#### **Solve problems involving the four operations, and identify and explain patterns in arithmetic.**

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **operation, multiply, divide, factor, product, quotient, subtract, add, addend, sum, difference, equation, unknown, strategies, reasonableness, mental computation, estimation, rounding, patterns, (properties)-rules about how numbers work**

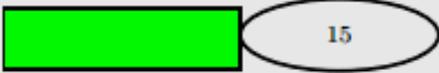
Common Core Standard	Unpacking What do these standards mean a child will know and be able to do?			
<p><b>3.OA.8</b> Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.<sup>3</sup></p> <p><sup>3</sup> This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order.</p>	<p>Students in third grade begin the step to formal algebraic language by using a letter for the unknown quantity in expressions or equations for one and two-step problems. But the symbols of arithmetic, <math>x</math> or <math>\cdot</math> or <math>*</math> for multiplication and <math>\div</math> or <math>/</math> for division, continue to be used in Grades 3, 4, and 5. (<i>Progressions for the CCSSM; Operations and Algebraic Thinking</i>, CCSS Writing Team, May 2011, page 27)</p> <p>This standard refers to two-step word problems using the four operations. The size of the numbers should be limited to related 3<sup>rd</sup> grade standards (e.g., 3.OA.7 and 3.NBT.2). Adding and subtracting numbers should include numbers within 1,000, and multiplying and dividing numbers should include single-digit factors and products less than 100.</p> <p>This standard calls for students to represent problems using equations with a letter to represent unknown quantities. Example: Mike runs 2 miles a day. His goal is to run 25 miles. After 5 days, how many miles does Mike have left to run in order to meet his goal? Write an equation and find the solution (<math>2 \times 5 + m = 25</math>).</p> <p>This standard refers to estimation strategies, including using compatible numbers (numbers that sum to 10, 50, or 100) or rounding. The focus in this standard is to have students use and discuss various strategies. Students should estimate during problem solving, and then revisit their estimate to check for reasonableness.</p> <p>Example: Here are some typical estimation strategies for the problem: On a vacation, your family travels 267 miles on the first day, 194 miles on the second day and 34 miles on the third day. How many total miles did they travel?</p> <table border="1"> <tr> <td> <p>Student 1 I first thought about 267 and 34. I noticed that their sum is about 300. Then I knew that 194 is close to 200. When I put 300 and 200 together, I get 500.</p> </td> <td> <p>Student 2 I first thought about 194. It is really close to 200. I also have 2 hundreds in 267. That gives me a total of 4 hundreds. Then I have 67 in 267 and the 34. When I put 67 and 34 together that is really close to 100. When I add that hundred to the 4 hundreds that I already had, I end up with 500.</p> </td> <td> <p>Student 3 I rounded 267 to 300. I rounded 194 to 200. I rounded 34 to 30. When I added 300, 200 and 30, I know my answer will be about 530.</p> </td> </tr> </table>	<p>Student 1 I first thought about 267 and 34. I noticed that their sum is about 300. Then I knew that 194 is close to 200. When I put 300 and 200 together, I get 500.</p>	<p>Student 2 I first thought about 194. It is really close to 200. I also have 2 hundreds in 267. That gives me a total of 4 hundreds. Then I have 67 in 267 and the 34. When I put 67 and 34 together that is really close to 100. When I add that hundred to the 4 hundreds that I already had, I end up with 500.</p>	<p>Student 3 I rounded 267 to 300. I rounded 194 to 200. I rounded 34 to 30. When I added 300, 200 and 30, I know my answer will be about 530.</p>
<p>Student 1 I first thought about 267 and 34. I noticed that their sum is about 300. Then I knew that 194 is close to 200. When I put 300 and 200 together, I get 500.</p>	<p>Student 2 I first thought about 194. It is really close to 200. I also have 2 hundreds in 267. That gives me a total of 4 hundreds. Then I have 67 in 267 and the 34. When I put 67 and 34 together that is really close to 100. When I add that hundred to the 4 hundreds that I already had, I end up with 500.</p>	<p>Student 3 I rounded 267 to 300. I rounded 194 to 200. I rounded 34 to 30. When I added 300, 200 and 30, I know my answer will be about 530.</p>		

The assessment of estimation strategies should only have one reasonable answer (500 or 530), or a range (between 500 and 550). Problems should be structured so that all acceptable estimation strategies will arrive at a reasonable answer.

**A two-step problem with diagram showing problem situation and equations showing the two parts**

Carla has 4 packages of silly bands. Each package has 8 silly bands in it. Agustin is supposed to get 15 fewer silly bands than Carla. How many silly bands should Agustin get?

Carla: 

Agustin: 

$C = \text{number of Carla's silly bands}$   
 $A = \text{number of Agustin's silly bands}$

$$C = 4 \times 8 = 32$$

$$A + 15 = C$$

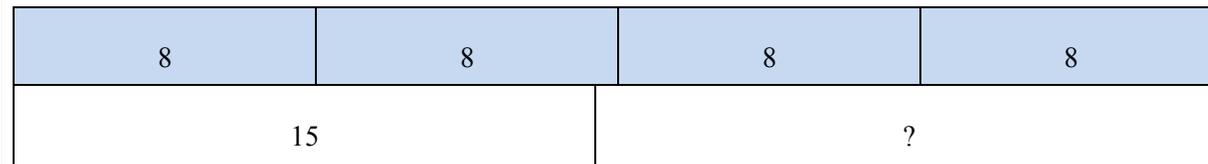
$$A + 15 = 32$$

$$A = 17$$

*Students may be able to solve this problem without writing such equations.*

(Progressions for the CCSSM; Operations and Algebraic Thinking, CCSS Writing Team, May 2011, page 28)

In the diagram above, Carla's bands are shown using 4 equal-sized bars that represent  $4 \times 8$  or 32 bands. Agustin's bands are directly below showing that the number that August in has plus  $15 = 32$ . The diagram can also be drawn like this:



**3.OA.9** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.

*For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

This standard calls for students to examine arithmetic patterns involving both addition and multiplication. Arithmetic patterns are patterns that change by the same rate, such as adding the same number. For example, the series 2, 4, 6, 8, 10 is an arithmetic pattern that increases by 2 between each term.

This standards also mentions identifying patterns related to the properties of operations.

Examples:

- Even numbers are always divisible by 2. Even numbers can always be decomposed into 2 equal addends ( $14 = 7 + 7$ ).
- Multiples of even numbers (2, 4, 6, and 8) are always even numbers.
- On a multiplication chart, the products in each row and column increase by the same amount (skip counting).
- On an addition chart, the sums in each row and column increase by the same amount.

What do you notice about the numbers highlighted in pink in the multiplication table?

Explain a pattern using properties of operations.

*When (commutative property) one changes the order of the factors they will still gets the same product, example  $6 \times 5 = 30$  and  $5 \times 6 = 30$ .*

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

Teacher: What pattern do you notice when 2, 4, 6, 8, or 10 are multiplied by any number (even or odd)?

Student: The product will always be an even number.

Teacher: Why?

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

What patterns do you notice in this addition table? Explain why the pattern works this way?

+	0	1	2	3	4	5	6	7	8	9	10
0	0	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10	11
2	2	3	4	5	6	7	8	9	10	11	12
3	3	4	5	6	7	8	9	10	11	12	13
4	4	5	6	7	8	9	10	11	12	13	14
5	5	6	7	8	9	10	11	12	13	14	15
6	6	7	8	9	10	11	12	13	14	15	16
7	7	8	9	10	11	12	13	14	15	16	17
8	8	9	10	11	12	13	14	15	16	17	18
9	9	10	11	12	13	14	15	16	17	18	19
10	19	11	12	13	14	15	16	17	18	19	20

Students need ample opportunities to observe and identify important numerical patterns related to operations. They should build on their previous experiences with properties related to addition and subtraction. Students investigate addition and multiplication tables in search of patterns and explain why these patterns make sense mathematically.

Example:

- Any sum of two even numbers is even.
- Any sum of two odd numbers is even.
- Any sum of an even number and an odd number is odd.
- The multiples of 4, 6, 8, and 10 are all even because they can all be decomposed into two equal groups.
- The doubles (2 addends the same) in an addition table fall on a diagonal while the doubles (multiples of 2) in a multiplication table fall on horizontal and vertical lines.
- The multiples of any number fall on a horizontal and a vertical line due to the commutative property.
- All the multiples of 5 end in a 0 or 5 while all the multiples of 10 end with 0. Every other multiple of 5 is a multiple of 10.

Students also investigate a hundreds chart in search of addition and subtraction patterns. They record and organize all the different possible sums of a number and explain why the pattern makes sense.

addend	addend	sum
0	20	20
1	19	20
2	18	20
3	17	20
4	16	20
□	□	□
□	□	□
□	□	□
20	0	20

# Number and Operations in Base Ten

3.NBT

## Common Core Cluster

**Use place value understanding and properties of operations to perform multi-digit arithmetic.<sup>1</sup>**

<sup>1</sup> A range of algorithms may be used.

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **place value, round, addition, add, addend, sum, subtraction, subtract, difference, strategies, (properties)-rules about how numbers work**

Common Core Standard	Unpacking What do these standards mean a child will know and be able to do?
<p><b>3.NBT.1</b> Use place value understanding to round whole numbers to the nearest 10 or 100.</p>	<p>This standard refers to place value understanding, which extends beyond an algorithm or memorized procedure for rounding. The expectation is that students have a deep understanding of place value and number sense and can explain and reason about the answers they get when they round. Students should have numerous experiences using a number line and a hundreds chart as tools to support their work with rounding.</p> <p>Mrs. Rutherford drives 158 miles on Saturday and 171 miles on Sunday. When she told her husband she estimated how many miles to the nearest 10 before adding the total. When she told her sister she estimated to the nearest 100 before adding the total. Which method provided a closer estimate?</p>
<p><b>3.NBT.2</b> Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p><sup>1</sup> A range of algorithms may be used.</p>	<p>This standard refers to fluently, which means accuracy, efficiency (using a reasonable amount of steps and time), and flexibility (using strategies such as the distributive property). The word algorithm refers to a procedure or a series of steps. There are other algorithms other than the standard algorithm. Third grade students should have experiences beyond the standard algorithm. A variety of algorithms and strategies will be assessed on North Carolina EOG assessment.</p> <p>Problems should include both vertical and horizontal forms, including opportunities for students to apply the commutative and associative properties. Students explain their thinking and show their work by using strategies and algorithms, and verify that their answer is reasonable.</p> <p><b>Computation algorithm.</b> A set of predefined steps applicable to a class of problems that gives the correct result in every case when the steps are carried out correctly.</p> <p><b>Computation strategy.</b> Purposeful manipulations that may be chosen for specific problems, may not have a fixed order, and may be aimed at converting one problem into another.</p> <p><i>(Progressions for the CCSSM; Number and Operation in Base Ten, CCSS Writing Team, April 2011, page 2)</i></p>

Example:

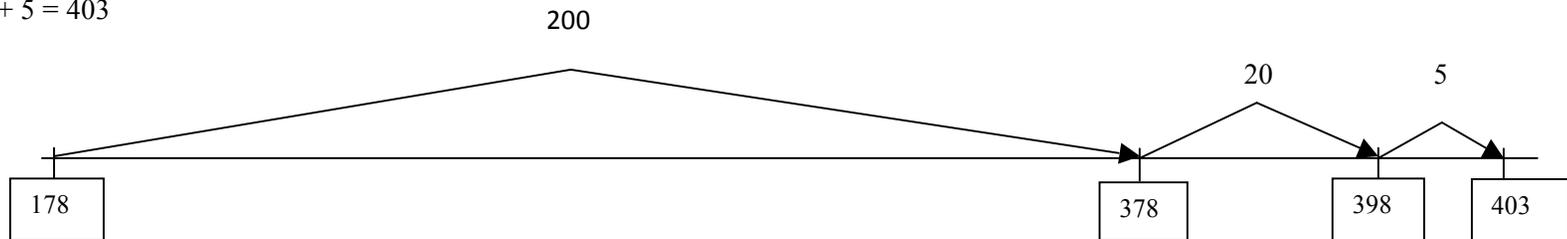
There are 178 fourth graders and 225 fifth graders on the playground. What is the total number of students on the playground?

Student 1  
 $100 + 200 = 300$   
 $70 + 20 = 90$   
 $8 + 5 = 13$   
 $300 + 90 + 13 = 403$  students

Student 2  
I added 2 to 178 to get 180. I added 220 to get 400. I added the 3 left over to get 403.

Student 3  
I know the 75 plus 25 equals 100. I then added 1 hundred from 178 and 2 hundreds from 275. I had a total of 4 hundreds and I had 3 more left to add. So I have 4 hundreds plus 3 more which is 403.

Student 4  
 $178 + 225 = ?$   
 $178 + 200 = 378$   
 $378 + 20 = 398$   
 $398 + 5 = 403$



**3.NBT.3** Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g.,  $9 \times 80$ ,  $5 \times 60$ ) using strategies based on place value and properties of operations.

This standard extends students' work in multiplication by having them apply their understanding of place value. This standard expects that students go beyond tricks that hinder understanding such as “just adding zeros” and explain and reason about their products.

For example, for the problem  $50 \times 4$ , students should think of this as 4 groups of 5 tens or 20 tens, and that twenty tens equals 200.

The special role of 10 in the base-ten system is important in understanding multiplication of one-digit numbers with multiples of 10. For example, the product  $3 \times 50$  can be represented as 3 groups of 5 tens, which is 15 tens, which is 150. This reasoning relies on the associative property of multiplication:  $3 \times 50 = 3 \times (5 \times 10) = (3 \times 5) \times 10 = 15 \times 10 = 150$ . It is an example of how to explain an instance of a calculation pattern for these products: calculate the product of the non-zero digits, and then shift the product one place to the left to make the result ten times as large.

• **Grade 3 explanations for “15 tens is 150”**

- Skip-counting by 50. 5 tens is 50, 100, 150.
- Counting on by 5 tens. 5 tens is 50, 5 more tens is 100, 5 more tens is 150.
- Decomposing 15 tens. 15 tens is 10 tens and 5 tens. 10 tens is 100. 5 tens is 50. So 15 tens is 100 and 50, or 150.
- Decomposing 15.

$$\begin{aligned} 15 \times 10 &= (10 + 5) \times 10 \\ &= (10 \times 10) + (5 \times 10) \\ &= 100 + 50 \\ &= 150 \end{aligned}$$

*All of these explanations are correct. However, skip-counting and counting on become more difficult to use accurately as numbers become larger, e.g., in computing  $5 \times 90$  or explaining why 45 tens is 450, and needs modification for products such as  $4 \times 90$ . The first does not indicate any place value understanding.*

*(Progressions for the CCSSM; Number and Operation in Base Ten, CCSS Writing Team, April 2011, page 11)*

# Number and Operation – Fractions<sup>1</sup>

3.NF

## Common Core Cluster

### Develop understanding of fractions as numbers.

<sup>1</sup> Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, 8.

Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole. For example,  $\frac{1}{2}$  of the paint in a small bucket could be less paint than  $\frac{1}{3}$  of the paint in a larger bucket, but  $\frac{1}{3}$  of a ribbon is longer than  $\frac{1}{5}$  of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **partition(ed), equal parts, fraction, equal distance ( intervals), equivalent, equivalence, reasonable, denominator, numerator, comparison, compare, <, >, =, justify**

### Common Core Standard

### Unpacking

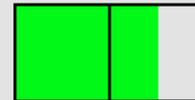
What do these standards mean a child will know and be able to do?

**3.NF.1** Understand a fraction  $\frac{1}{b}$  as the quantity formed by 1 part when  $a$  whole is partitioned into  $b$  equal parts; understand a fraction  $\frac{a}{b}$  as the quantity formed by  $a$  parts of size  $\frac{1}{b}$ .

This standard refers to the sharing of a whole being partitioned. Fraction models in third grade include only area (parts of a whole) models (circles, rectangles, squares) and number lines. Set models (parts of a group) are not addressed in Third Grade.

In 3.NF.1 students start with unit fractions (fractions with numerator 1), which are formed by partitioning a whole into equal parts and reasoning about one part of the whole, e.g., if a whole is partitioned into 4 equal parts then each part is  $\frac{1}{4}$  of the whole, and 4 copies of that part make the whole. Next, students build fractions from unit fractions, seeing the numerator 3 of  $\frac{3}{4}$  as saying that  $\frac{3}{4}$  is the quantity you get by putting 3 of the  $\frac{1}{4}$ 's together. There is no need to introduce "improper fractions" initially.

#### The importance of specifying the whole



*Without specifying the whole it is not reasonable to ask what fraction is represented by the shaded area. If the left square is the whole, the shaded area represents the fraction  $\frac{3}{2}$ ; if the entire rectangle is the whole, the shaded area represents  $\frac{3}{4}$ .*

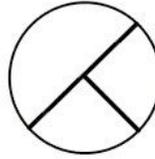
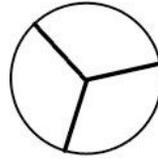
(Progressions for the CCSSM; Number and Operation – Fractions, CCSS Writing Team, August 2011, page 2)

Some important concepts related to developing understanding of fractions include:

- Understand fractional parts must be equal-sized.

Example

Non-example



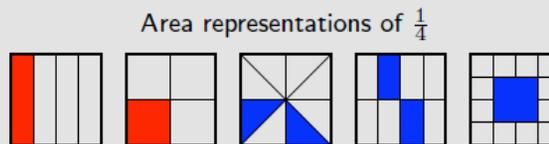
These are thirds

These are NOT thirds

- The number of equal parts tell how many make a whole.
- As the number of equal pieces in the whole increases, the size of the fractional pieces decreases.
- The size of the fractional part is relative to the whole.
  - One-half of a small pizza is relatively smaller than one-half of a large pizza.
- When a whole is cut into equal parts, the denominator represents the number of equal parts.
- The numerator of a fraction is the count of the number of equal parts.
  - $\frac{3}{4}$  means that there are 3 one-fourths.
  - Students can count *one fourth, two fourths, three fourths*.

Students express fractions as fair sharing or, parts of a whole. They use various contexts (candy bars, fruit, and cakes) and a variety of models (circles, squares, rectangles, fraction bars, and number lines) to develop understanding of fractions and represent fractions. Students need many opportunities to solve word problems that require them to create and reason about fair share.

Initially, students can use an intuitive notion of “same size and same shape” (congruence) to explain why the parts are equal, e.g., when they divide a square into four equal squares or four equal rectangles. Students come to understand a more precise meaning for “equal parts” as “parts with equal measurements.” For example, when a ruler is partitioned into halves or quarters of an inch, they see that each subdivision has the same length. In area models they reason about the area of a shaded region to decide what fraction of the whole it represents.



Area representations of  $\frac{1}{4}$

In each representation the square is the whole. The two squares on the left are divided into four parts that have the same size and shape, and so the same area. In the three squares on the right, the shaded area is  $\frac{1}{4}$  of the whole area, even though it is not easily seen as one part in a division of the square into four parts of the same shape and size.

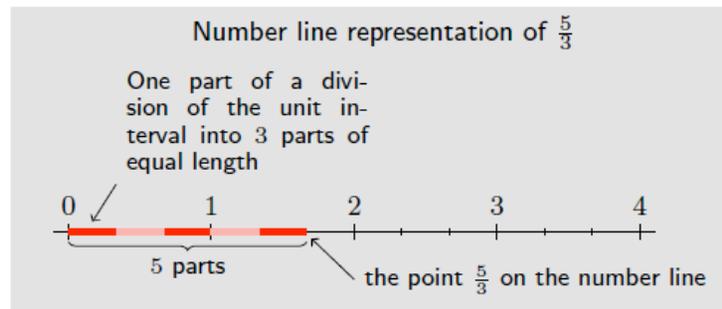
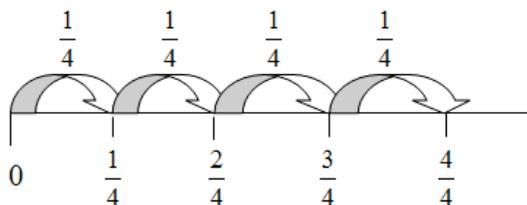
(Progressions for the CCSSM, Number and Operation – Fractions, CCSS Writing Team, August 2011, page 3)

**3.NF.2** Understand a fraction as a number on the number line; represent fractions on a number line diagram.

- a. Represent a fraction  $\frac{1}{b}$  on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into  $b$  equal parts. Recognize that each part has size  $\frac{1}{b}$  and that the endpoint of the part based at 0 locates the number  $\frac{1}{b}$  on the number line.
- b. Represent a fraction  $\frac{a}{b}$  on a number line diagram by marking off a lengths  $\frac{1}{b}$  from 0. Recognize that the resulting interval has size  $\frac{a}{b}$  and that its endpoint locates the number  $\frac{a}{b}$  on the number line.

The number line diagram is the first time students work with a number line for numbers that are between whole numbers (e.g., that  $\frac{1}{2}$  is between 0 and 1). Students need ample experiences folding linear models (e.g., string, sentence strips) to help them reason about and justify the location of fractions, such that  $\frac{1}{2}$  lies exactly halfway between 0 and 1.

In the number line diagram below, the space between 0 and 1 is divided (partitioned) into 4 equal regions. The distance from 0 to the first segment is 1 of the 4 segments from 0 to 1 or  $\frac{1}{4}$  (**3.NF.2a**). Similarly, the distance from 0 to the third segment is 3 segments that are each one-fourth long. Therefore, the distance of 3 segments from 0 is the fraction  $\frac{3}{4}$  (**3.NF.2b**).



(Progressions for the CCSSM, Number and Operation – Fractions, CCSS Writing Team, August 2011, page 3)

**3.NF.3** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

- a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
- b. Recognize and generate simple equivalent fractions, e.g.,  $1/2 = 2/4$ ,  $4/6 = 2/3$ . Explain why the fractions are equivalent, e.g., by using a visual fraction model.
- c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.*
- d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual fraction model.

An important concept when comparing fractions is to look at the size of the parts and the number of the parts. For example,  $\frac{1}{8}$  is smaller than  $\frac{1}{2}$  because when 1 whole is cut into 8 pieces, the pieces are much smaller than when 1 whole is cut into 2 pieces.

**3.NF.3a** and **3.NF.3b** These standards call for students to use visual fraction models (area models) and number lines to explore the idea of equivalent fractions. Students should only explore equivalent fractions using models, rather than using algorithms or procedures.

This standard includes writing whole numbers as fractions. The concept relates to fractions as division problems, where the fraction  $3/1$  is 3 wholes divided into one group. This standard is the building block for later work where students divide a set of objects into a specific number of groups. Students must understand the meaning of  $a/1$ .

Example:

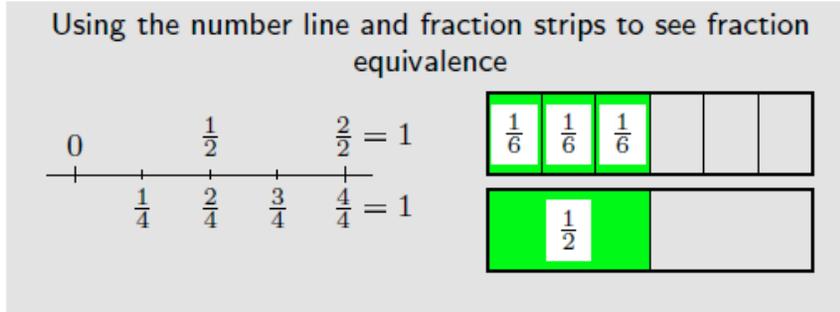
If 6 brownies are shared between 2 people, how many brownies would each person get?

This standard involves comparing fractions with or without visual fraction models including number lines. Experiences should encourage students to reason about the size of pieces, the fact that  $1/3$  of a cake is larger than  $1/4$  of the same cake. Since the same cake (the whole) is split into equal pieces, thirds are larger than fourths.

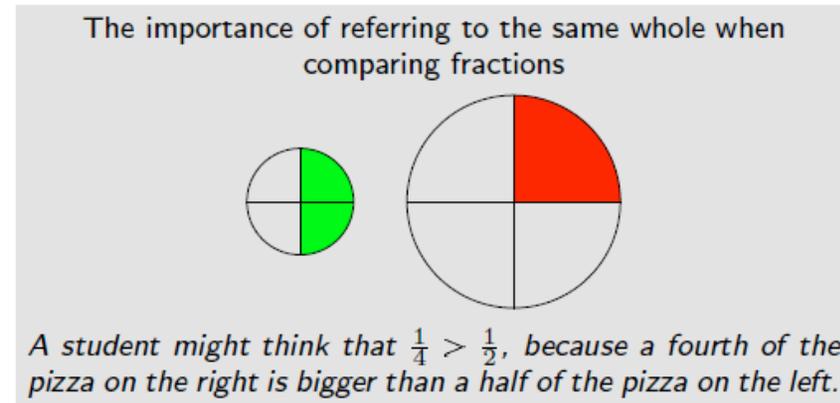
In this standard, students should also reason that comparisons are only valid if the wholes are identical. For example,  $1/2$  of a large pizza is a different amount than  $1/2$  of a small pizza. Students should be given opportunities to discuss and reason about which  $1/2$  is larger.

Previously, in second grade, students compared lengths using a standard measurement unit. In third grade they build on this idea to compare fractions with the same denominator. They see that for fractions that have the same denominator, the underlying unit fractions are the same size, so the fraction with the greater numerator is greater because it is made of more unit fractions. For example, segment from 0 to  $3/4$  is shorter than the segment from 0 to  $5/4$  because it measures 3 units of  $1/4$  as opposed to 5 units of  $1/4$ , therefore  $3/4 < 5/4$ .

Students also see that for unit fractions, the one with the larger denominator is smaller, by reasoning, for example, that in order for more (identical) pieces to make the same whole, the pieces must be smaller. From this they reason that for fractions that have the same numerator, the fraction with the smaller denominator is greater. For example,  $\frac{2}{5} > \frac{2}{7}$ , because  $\frac{1}{7} < \frac{1}{5}$ , so 2 lengths of  $\frac{1}{7}$  is less than 2 lengths of  $\frac{1}{5}$ . As with equivalence of fractions, it is important in comparing fractions to make sure that each fraction refers to the same whole.



*(Progressions for the CCSSM, Number and Operation – Fractions, CCSS Writing Team, August 2011, page 4)*



*(Progressions for the CCSSM, Number and Operation – Fractions, CCSS Writing Team, August 2011, page 4)*

# Measurement and Data

# 3.MD

## Common Core Cluster

**Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **estimate, time, time intervals, minute, hour, elapsed time, measure, liquid volume, mass, standard units, metric, gram (g), kilogram (kg), liter (L)**

### Unpacking Common Core

### Unpacking

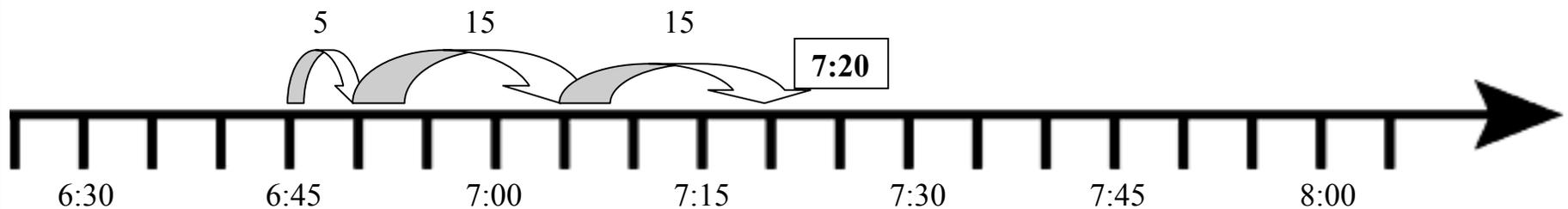
What do these standards mean a child will know and be able to do?

**3.MD.1** Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

This standard calls for students to solve elapsed time, including word problems. Students could use clock models or number lines to solve. On the number line, students should be given the opportunities to determine the intervals and size of jumps on their number line. Students could use pre-determined number lines (intervals every 5 or 15 minutes) or open number lines (intervals determined by students).

Example:

Tonya wakes up at 6:45 a.m. It takes her 5 minutes to shower, 15 minutes to get dressed, and 15 minutes to eat breakfast. What time will she be ready for school?



**3.MD.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).<sup>1</sup> Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.<sup>2</sup>

<sup>1</sup> Excludes compound units such as  $\text{cm}^3$  and finding the geometric volume of a container.

<sup>2</sup> Excludes multiplicative comparison problems (problems involving notions of “times as much”; see Glossary, Table 2). (page 89)

(Table included at the end of this document for your convenience)

This standard asks for students to reason about the units of mass and volume using units g, kg, and L. Students need multiple opportunities weighing classroom objects and filling containers to help them develop a basic understanding of the size and weight of a liter, a gram, and a kilogram. Milliliters may also be used to show amounts that are less than a liter emphasizing the relationship between smaller units to larger units in the same system. Word problems should only be one-step and include the same units.

Students are not expected to do conversions between units, but reason as they estimate, using benchmarks to measure weight and capacity.

Example:

Students identify 5 things that weigh about one gram. They record their findings with words and pictures. (Students can repeat this for 5 grams and 10 grams.) This activity helps develop gram benchmarks. One large paperclip weighs about one gram.

Example:

A paper clip weighs about a) a gram, b) 10 grams, c) 100 grams? Explain why.

Foundational understandings to help with measure concepts:

Understand that larger units can be subdivided into equivalent units (partition).

Understand that the same unit can be repeated to determine the measure (iteration).

Understand the relationship between the size of a unit and the number of units needed (compensatory principal).

Before learning to measure attributes, children need to recognize them, distinguishing them from other attributes. That is, the attribute to be measured has to “stand out” for the student and be discriminated from the undifferentiated sense of amount that young children often have, labeling greater lengths, areas, volumes, and so forth, as “big” or “bigger.”

These standards do not differentiate between weight and mass. Technically, mass is the amount of matter in an object. Weight is the force exerted on the body by gravity. On the earth’s surface, the distinction is not important (on the moon, an object would have the same mass, would weigh less due to the lower gravity).

(*Progressions for the CCSSM, Geometric Measurement*, CCSS Writing Team, June 2012, page 2)

Much of the work involving measure support the work the emphasized in third on multiplication.  
 Example:

**Table 1: Multiplication and division situations for measurement**

	Unknown Product $A \times B = \square$	Group Size Unknown $A \times \square = C$ and $C \div A = \square$	Number of Groups Unknown $\square \times B = C$ and $C \div B = \square$
<b>Grouped Objects (Units of Units)</b>	You need $A$ lengths of string, each $B$ inches long. How much string will you need altogether?	You have $C$ inches of string, which you will cut into $A$ equal pieces. How long will each piece of string be?	You have $C$ inches of string, which you will cut into pieces that are $B$ inches long. How many pieces of string will you have?
<b>Arrays of Objects (Spatial Structuring)</b>	What is the area of a $A$ cm by $B$ cm rectangle?	A rectangle has area $C$ square centimeters. If one side is $A$ cm long, how long is a side next to it?	A rectangle has area $C$ square centimeters. If one side is $B$ cm long, how long is a side next to it?
<b>Compare</b>	A rubber band is $B$ cm long. How long will the rubber band be when it is stretched to be $A$ times as long?	A rubber band is stretched to be $C$ cm long and that is $A$ times as long as it was at first. How long was the rubber band at first?	A rubber band was $B$ cm long at first. Now it is stretched to be $C$ cm long. How many times as long is the rubber band now as it was at first?

Adapted from box 2-4 of *Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity*, National Research Council, 2009, pp. 32–33. Note that Grade 3 work does not include Compare problems with “times as much,” see the Operations and Algebraic Thinking Progression, Table 3, also p. 29.

*(Progressions for the CCSSM, Geometric Measurement, CCSS Writing Team, June 2012, page 19)*

## Common Core Cluster

### Represent and interpret data.

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **scale, scaled picture graph, scaled bar graph, line plot, data**

#### Common Core Standard

**3.MD.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs.

*For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*

#### Unpacking

What do these standards mean a child will know and be able to do?

Students should have opportunities reading and solving problems using scaled graphs before being asked to draw one. Work with scaled graphs builds on students’ understanding of multiplication and division.

The following graphs provided below all use five as the scale interval, but students should experience different intervals to further develop their understanding of scale graphs and number facts.

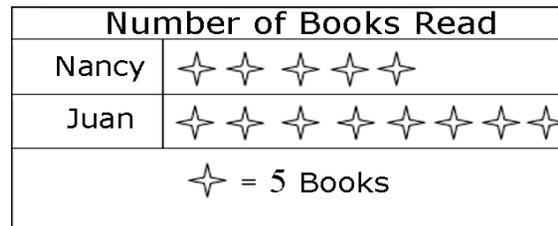
While exploring data concepts, students should Pose a question, Collect data, Analyze data, and Interpret data (PCAI). Students should be graphing data that is relevant to their lives

Example:

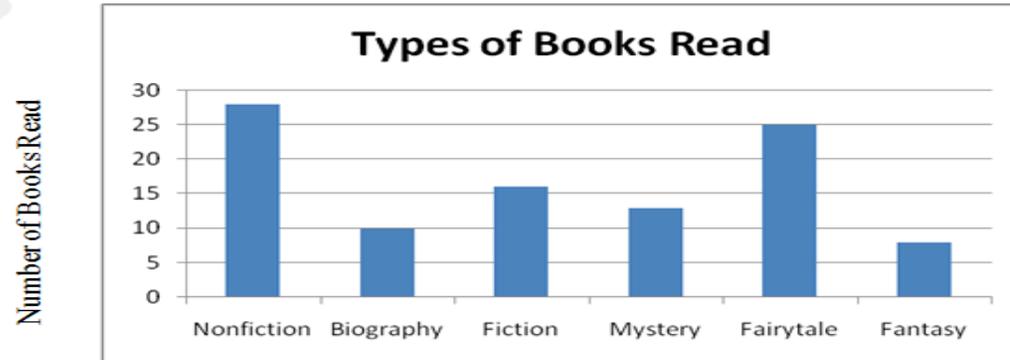
Pose a question: Student should come up with a question. What is the typical genre read in our class?

Collect and organize data: student survey

Pictographs: Scaled pictographs include symbols that represent multiple units. Below is an example of a pictograph with symbols that represent multiple units. Graphs should include a title, categories, category label, key, and data. How many more books did Juan read than Nancy?



Single Bar Graphs: Students use both horizontal and vertical bar graphs. Bar graphs include a title, scale, scale label, categories, category label, and data.



Analyze and Interpret data:

- How many more nonfiction books were read than fantasy books?
- Did more people read biography and mystery books or fiction and fantasy books?
- About how many books in all genres were read?
- Using the data from the graphs, what type of book was read more often than a mystery but less often than a fairytale?
- What interval was used for this scale?
- What can we say about types of books read? What is a typical type of book read? (beyond standard)
- If you were to purchase a book for the class library which would be the best genre? Why? (beyond standard)

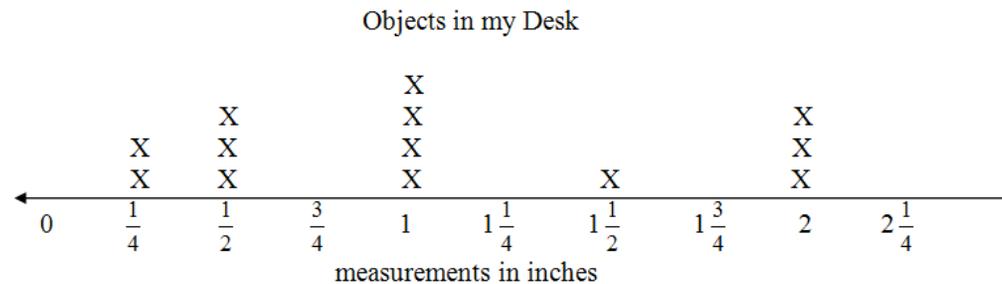
**3.MD.4** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

Students in second grade measured length in whole units using both metric and U.S. customary systems. It's important to review with students how to read and use a standard ruler including details about halves and quarter marks on the ruler. Students should connect their understanding of fractions to measuring to one-half and one-quarter inch. Third graders need many opportunities measuring the length of various objects in their environment.

This standard provides a context for students to work with fractions by measuring objects to a quarter of an inch.

Example:

Measure objects in your desk to the nearest  $\frac{1}{2}$  or  $\frac{1}{4}$  of an inch, display data collected on a line plot. How many objects measured  $\frac{1}{4}$ ?  $\frac{1}{2}$ ? etc...



In Grade 3, students are beginning to learn fraction concepts (3.NF). They understand fraction equivalence in simple cases, and they use visual fraction models to represent and order fractions. Grade 3 students also measure lengths using rulers marked with halves and fourths of an inch. They use their developing knowledge of fractions and number lines to extend their work from the previous grade by working with measurement data involving fractional measurement values.

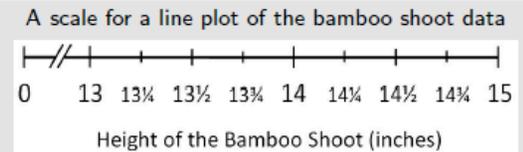
For example, every student in the class might measure the height of a bamboo shoot growing in the classroom, leading to the data set shown in the table. (Illustration below shows a larger data set than students would normally work with in elementary grades.)

To make a line plot from the data in the table, the student can determine the greatest and least values in the data:  $13\frac{1}{2}$  inches and  $14\frac{3}{4}$  inches. The student can draw a segment of a number line diagram that includes these extremes, with tick marks indicating specific values on the measurement scale. This is just like part of the scale on a ruler. Having drawn the number line diagram, the student can proceed through the data set recording each observation by drawing a symbol, such as a dot, above the proper tick mark. As with Grade 2 line plots, if a particular data value appears many times in the data set, dots will “pile up” above that value. There is no need to

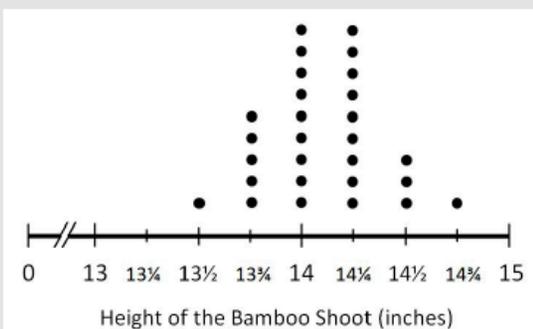
sort the observations, or to do any counting of them, before producing the line plot. Students can pose questions about data presented in line plots, such as how many students obtained measurements larger than  $14 \frac{1}{4}$  inches.

Students' measurements of a statue and of a bamboo shoot

Statue measurements		Bamboo shoot measurements	
Student's initials	Student's measured value (inches)	Student's initials	Height value (inches)
W.B.	64	W.B.	$13 \frac{3}{4}$
D.W.	65	D.W.	$14 \frac{1}{2}$
H.D.	65	H.D.	$14 \frac{1}{4}$
G.W.	65	G.W.	$14 \frac{3}{4}$
V.Y.	67	V.Y.	$14 \frac{1}{4}$
T.T.	66	T.T.	$14 \frac{1}{2}$
D.F.	67	D.F.	14
B.H.	65	B.H.	$13 \frac{1}{2}$
H.H.	63	H.H.	$14 \frac{1}{4}$
V.H.	64	V.H.	$14 \frac{1}{4}$
I.O.	64	I.O.	$14 \frac{1}{4}$
W.N.	65	W.N.	14
B.P.	69	B.P.	$14 \frac{1}{2}$
V.A.	65	V.A.	$13 \frac{3}{4}$
H.L.	66	H.L.	14
O.M.	64	O.M.	$13 \frac{3}{4}$
L.E.	65	L.E.	$14 \frac{1}{4}$
M.J.	66	M.J.	$13 \frac{3}{4}$
T.D.	66	T.D.	$14 \frac{1}{4}$
K.P.	64	K.P.	14
H.N.	65	H.N.	14
W.M.	67	W.M.	14
C.Z.	64	C.Z.	$13 \frac{3}{4}$
J.I.	66	J.I.	14
M.S.	66	M.S.	$14 \frac{1}{4}$
T.C.	65	T.C.	14
G.V.	67	G.V.	14
O.F.	65	O.F.	$14 \frac{1}{4}$



A line plot of the bamboo shoot data



(Progressions for the CCSSM, Measurement Data, CCSS Writing Team, June 2011, page 10)

## Common Core Cluster

### Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area. Students understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area to multiplication, and justify using multiplication to determine the area of a rectangle.

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **attribute, area, square unit, plane figure, gap, overlap, square cm, square m, square in., square ft, nonstandard units, tiling, side length, decomposing**

### Common Core Standard

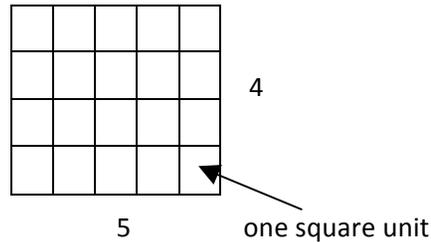
**3.MD.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.

- A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
- A plane figure which can be covered without gaps or overlaps by  $n$  unit squares is said to have an area of  $n$  square units.

### Unpacking

What do these standards mean a child will know and be able to do?

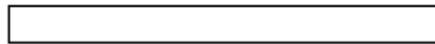
These standards call for students to explore the concept of covering a region with “unit squares,” which could include square tiles or shading on grid or graph paper. Based on students’ development, they should have ample experiences filling a region with square tiles before transitioning to pictorial representations on graph paper.



Example:

**Which rectangle covers the most area?**

(a)  (b) 

(c) 

These rectangles are formed from unit squares (tiles students have used) although students are not informed of this or the rectangle's dimensions: (a) 4 by 3, (b) 2 by 6, and (c) 1 row of 12. Activity from Lehrer, et al., 1998, "Developing understanding of geometry and space in the primary grades," in R. Lehrer & D. Chazan (Eds.), *Designing Learning Environments for Developing Understanding of Geometry and Space*, Lawrence Erlbaum Associates.

*(Progressions for the CCSSM, Geometric Measurement, CCSS Writing Team, June 2012, page 16)*

**3.MD.6** Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

Students should be counting the square units to find the area could be done in metric, customary, or non-standard square units. Using different sized graph paper, students can explore the areas measured in square centimeters and square inches.

The task shown above would provides a great experience for students to tile a region and count the number of square units

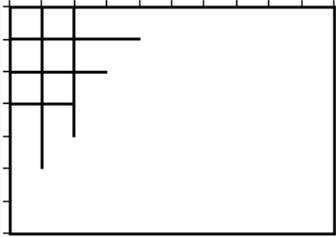
**3.MD.7** Relate area to the operations of multiplication and addition.

- a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

Students can learn how to multiply length measurements to find the area of a rectangular region. But, in order that they make sense of these quantities, they must first learn to interpret measurement of rectangular regions as a multiplicative relationship of the number of square units in a row and the number of rows. This relies on the development of spatial structuring. To build from spatial structuring to understanding the number of area-units as the product of number of units in a row and number of rows, students might draw rectangular arrays of squares and learn to determine the number of squares in each row with increasingly sophisticated strategies, such as skip-counting the number in each row and eventually multiplying the number in each row by the number of rows. They learn to partition a rectangle into identical squares by anticipating the final structure and forming the array by drawing line segments to form rows and columns. They use skip counting and multiplication to determine the number of squares in the array.

Many activities that involve seeing and making arrays of squares to form a rectangle might be needed to build robust conceptions of a rectangular area structured into squares.

**Incomplete array**



To determine the area of this rectangular region, students might be encouraged to construct a row, corresponding to the indicated positions, then repeating that row to fill the region. Cutouts of strips of rows can help the needed spatial structuring and reduce the time needed to show a rectangle as rows or columns of squares. Drawing all of the squares can also be helpful, but it is slow for larger rectangles. Drawing the unit lengths on the opposite sides can help students see that joining opposite unit end-points will create the needed unit square grid.

Students should understand and explain why multiplying the side lengths of a rectangle yields the same measurement of area as counting the number of tiles (with the same unit length) that fill the rectangle's interior. For example, students might explain that one length tells how many unit squares in a row and the other length tells how many rows there are.

*(Progressions for the CCSSM, Geometric Measurement, CCSS Writing Team, June 2012, page 17)*

Students should tile rectangle then multiply the side lengths to show it is the same.

To find the area one could count the squares or multiply  $3 \times 4 = 12$ .

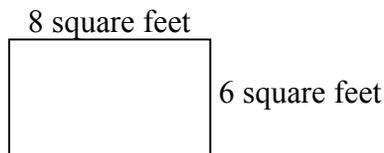
1	2	3	4
5	6	7	8
9	10	11	12

- b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

Students should solve real world and mathematical problems

Example:

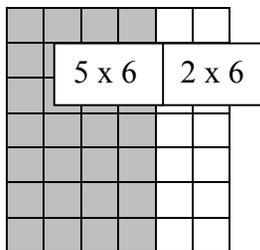
Drew wants to tile the bathroom floor using 1 foot tiles. How many square foot tiles will he need?



Students might solve problems such as finding all the rectangular regions with whole-number side lengths that have an area of 12 area-units, doing this for larger rectangles (e.g., enclosing 24, 48, 72 area-units), making sketches rather than drawing each square. Students learn to justify their belief they have found all possible solutions. (*Progressions for the CCSSM, Geometric Measurement*, CCSS Writing Team, June 2012, page 18)

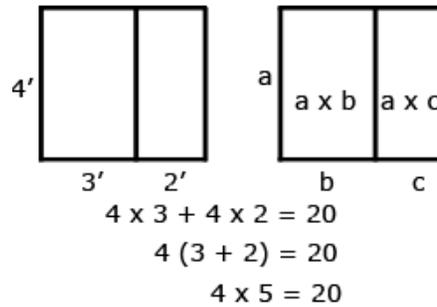
- c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths  $a$  and  $b + c$  is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.

This standard extends students' work with the distributive property. For example, in the picture below the area of a  $7 \times 6$  figure can be determined by finding the area of a  $5 \times 6$  and  $2 \times 6$  and adding the two sums.



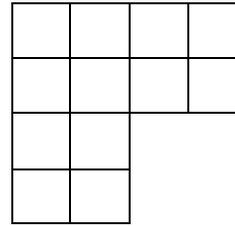
Using concrete objects or drawings students build competence with composition and decomposition of shapes, spatial structuring, and addition of area measurements, students learn to investigate arithmetic properties using area models. For example, they learn to rotate rectangular arrays physically and mentally, understanding that their areas are preserved under rotation, and thus, for example,  $4 \times 7 = 7 \times 4$ , illustrating the commutative property of multiplication. Students also learn to understand and explain that the area of a rectangular region of, for example, 12 length-units by 5 length-units can be found either by multiplying  $12 \times 5$ , or by adding two products, e.g.,  $10 \times 5$  and  $2 \times 5$ , illustrating the distributive property. (*Progressions for the CCSSM, Geometric Measurement*, CCSS Writing Team, June 2012, page 18)

Example:

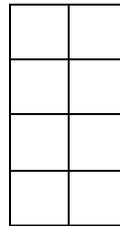


- d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

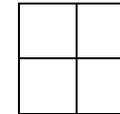
This standard uses the word rectilinear. A rectilinear figure is a polygon that has all right angles.



How could this figure be decomposed to help find the area?



This portion of the decomposed figure is a  $4 \times 2$ .



This portion of the decomposed figure is  $2 \times 2$ .

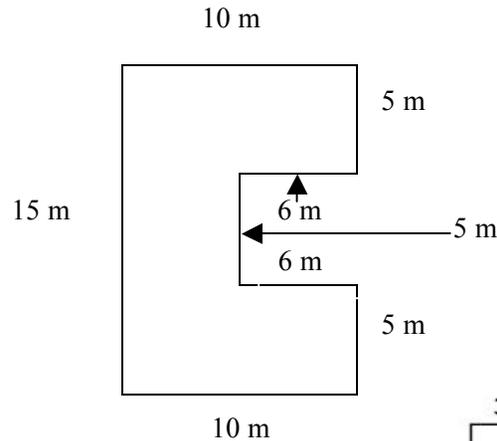
$4 \times 2 = 8$  and  $2 \times 2 = 4$   
 So  $8 + 4 = 12$

Therefore the total area of this figure is 12 square units

Example:

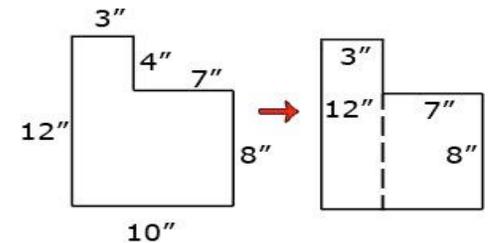
A storage shed is pictured below. What is the total area?

How could the figure be decomposed to help find the area?



Example:

Students can decompose a rectilinear figure into different rectangles. They find the area of the figure by adding the areas of each of the rectangles together.



$$\text{area is } 12 \times 3 + 8 \times 7 = 92 \text{ sq inches}$$

With strong and distinct concepts of both perimeter and area established, students can work on problems to differentiate their measures. For example, they can find and sketch rectangles with the same perimeter and different areas or with the same area and different perimeters and justify their claims. Differentiating perimeter from area is facilitated by having students draw congruent rectangles and measure, mark off, and label the unit lengths all around the perimeter on one rectangle, then do the same on the other rectangle but also draw the square units. This enables students to see the units involved in length and area and find patterns in finding the lengths and areas of non-square and square rectangles. Students can continue to describe and show the units involved in perimeter and area after they no longer need these. (*Progressions for the CCSSM, Geometric Measurement*, CCSS Writing Team, June 2012, page 18)

## Common Core Cluster

### Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **attribute, perimeter, plane figure, linear, area, polygon, side length**

#### Common Core Standard

**3.MD.8** Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

#### Unpacking

What do these standards mean a child will know and be able to do?

Students develop an understanding of the concept of perimeter through various experiences, such as walking around the perimeter of a room, using rubber bands to represent the perimeter of a plane figure on a geoboard, or tracing around a shape on an interactive whiteboard. They find the perimeter of objects; use addition to find perimeters; and recognize the patterns that exist when finding the sum of the lengths and widths of rectangles.

Students should also strategically use tools, such as geoboards, tiles, and graph paper to find all the possible rectangles that have a given perimeter (e.g., find the rectangles with a perimeter of 14 cm.) They record all the possibilities using dot or graph paper, compile the possibilities into an organized list or a table, and determine whether they have all the possible rectangles. Following this experience, students can reason about connections between their representations, side lengths, and the perimeter of the rectangles.

Given a perimeter and a length or width, students use objects or pictures to find the missing length or width. They justify and communicate their solutions using words, diagrams, pictures, numbers, and an interactive whiteboard. Students use geoboards, tiles, graph paper, or technology to find all the possible rectangles with a given area (e.g. find the rectangles that have an area of 12 square units.) They record all the possibilities using dot or graph paper, compile the possibilities into an organized list or a table, and determine whether they have all the possible rectangles. Students then investigate the perimeter of the rectangles with an area of 12.

Area	Length	Width	Perimeter
12 sq. in.	1 in.	12 in.	26 in.
12 sq. in.	2 in.	6 in.	16 in.
12 sq. in.	3 in.	4 in.	14 in.
12 sq. in.	4 in.	3 in.	14 in.
12 sq. in.	6 in.	2 in.	16 in.
12 sq. in.	12 in.	1 in.	26 in.

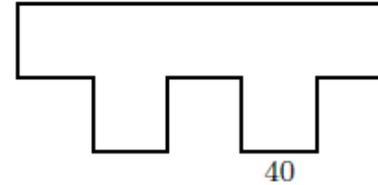
The patterns in the chart allow the students to identify the factors of 12, connect the results to the commutative property, and discuss the differences in perimeter within the same area. This chart can also be used to investigate rectangles with the same perimeter. It is important to include squares in the investigation.

A perimeter is the boundary of a two-dimensional shape. For a polygon, the length of the perimeter is the sum of the lengths of the sides. Initially, it is useful to have sides marked with unit length marks, allowing students to count the unit lengths. Later, the lengths of the sides can be labeled with numerals. As with all length tasks, students need to count the length-units and not the end-points. Next, students learn to mark off unit lengths with a ruler and label the length of each side of the polygon. For rectangles, parallelograms, and regular polygons, students can discuss and justify faster ways to find the perimeter length than just adding all of the lengths. Rectangles and parallelograms have opposite sides of equal length, so students can double the lengths of adjacent sides and add those numbers or add lengths of two adjacent sides and double that number. A regular polygon has all sides of equal length, so its perimeter length is the product of one side length and the number of sides. Perimeter problems for rectangles and parallelograms often give only the lengths of two adjacent sides or only show numbers for these sides in a drawing of the shape. The common error is to add just those two numbers. Having students first label the lengths of the other two sides as a reminder is helpful. Students then find unknown side lengths in more difficult “missing measurements” problems and other types of perimeter problems.  
*(Progressions for the CCSSM, Geometric Measurement, CCSS Writing Team, June 2012, page 16)*

### Missing measurements and other perimeter problems



The perimeter of this rectangle is 168 length units. What are the lengths of the three unlabeled sides?



Assume all short segments are the same length and all angles are right

Compare these problems with the “missing measurements” problems of Grade 2.

Another type of perimeter problem is to draw a robot on squared grid paper that meets specific criteria. All the robot’s body parts must be rectangles. The perimeter of the head might be 36 length-units, the body, 72; each arm, 24; and each leg, 72. Students are asked to provide a convincing argument that their robots meet these criteria (MP3). Next, students are asked to figure out the area of each of their body parts (in square units). These are discussed, with students led to reflect on the different areas that may be produced with rectangles of the same perimeter. These types of problems can be also presented as turtle geometry problems. Students create the commands on paper and then give their commands to the Logo turtle to check their calculations. For turtle length units, the perimeter of the head might be 300 length-units, the body, 600; each arm, 400; and each leg, 640.

*(Progressions for the CCSSM, Geometric Measurement, CCSS Writing Team, June 2012, page 16)*

**Common Core Cluster**

**Reason with shapes and their attributes.**

Students describe, analyze, and compare properties of two dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: **properties<sup>1</sup>, attributes<sup>1</sup>, features<sup>1</sup>, quadrilateral, open figure, closed figure, three-sided, 2-dimensional, rhombi, rectangles, and squares are subcategories of quadrilaterals, polygon, rhombus/rhombi, rectangle, square, partition, unit fraction, kite**

From previous grades: **triangle, quadrilateral, pentagon, hexagon, cube, trapezoid, half/quarter circle, circle, cone, cylinder, sphere**

<sup>1</sup>The term “**property**” in these standards is reserved for those attributes that indicate a relationship between components of shapes. Thus, “having parallel sides” or “having all sides of equal lengths” are properties. “**Attributes**” and “**features**” are used interchangeably to indicate any characteristic of a shape, including properties, and other defining characteristics (e.g., straight sides) and non-defining characteristics (e.g., “right-side up”).

(*Progressions for the CCSSM, Geometry*, CCSS Writing Team, June 2012, page 3 footnote)

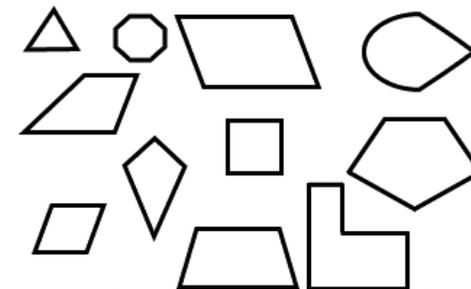
**Common Core Standard**

**Unpacking**

What do these standards mean a child will know and be able to do?

**3.G.1** Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

In second grade, students identify and draw triangles, quadrilaterals, pentagons, and hexagons. Third graders build on this experience and further investigate quadrilaterals (technology may be used during this exploration). Students recognize shapes that are and are not quadrilaterals by examining the properties of the geometric figures. They conceptualize that a quadrilateral must be a closed figure with four straight sides and begin to notice characteristics of the angles and the relationship between opposite sides. Students should be encouraged to provide details and use proper vocabulary when describing the properties of quadrilaterals. They sort geometric figures (see examples below) and identify squares, rectangles, and rhombuses as quadrilaterals.



Fourth grade students have built a firm foundation of several shape categories, these categories can be the raw material for thinking about the relationships between classes. Students should classify shapes by attributes and drawing shapes that fit specific categories.

Example: students can form larger, categories, such as the class of all shapes with four sides, or quadrilaterals, and recognize that it includes other categories, such as squares, rectangles, rhombuses, parallelograms, and trapezoids. They also recognize that there are quadrilaterals that are not in any of those subcategories.

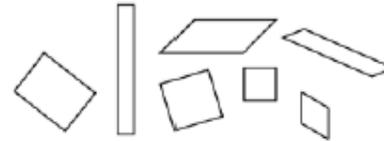
## Quadrilaterals and some special kinds of quadrilaterals

Quadrilaterals: four-sided shapes.



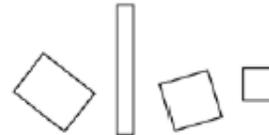
Subcategory:

Parallelograms: four-sided shapes that have two pairs of parallel sides.



Subcategory:

Rectangles: four-sided shapes that have four right angles. They also have two pairs of parallel sides. We could call them "rectangular parallelograms."



Subcategory:

Squares: four-sided shapes that have four right angles and four sides of the same length. We could call them "rhombus rectangles."



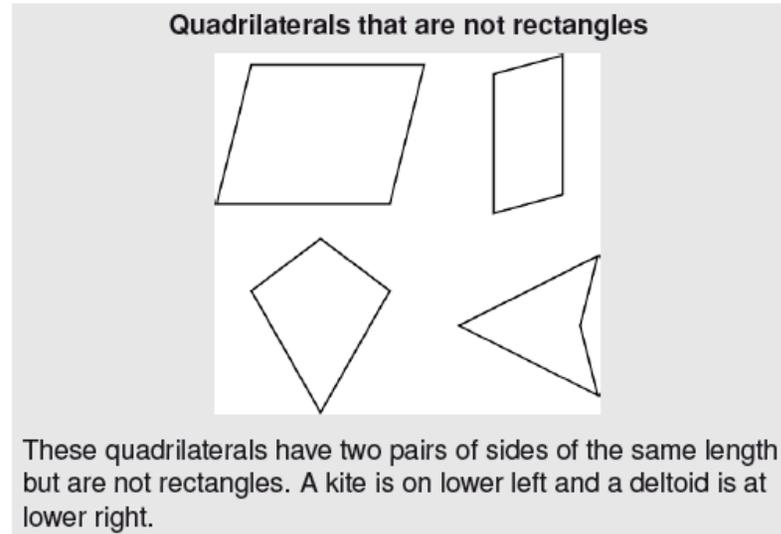
1

The representations above might be used by teachers in class. Note that the left-most four shapes in the first section at the top left have four sides but do not have properties that would place them in any of the other categories shown (parallelograms, rectangles, squares).

The standards do **not** require the above representation be constructed by students, but they should represent be able to draw examples of quadrilaterals that are not in the subcategories.

(Progressions for the CCSSM, Geometry, CCSS Writing Team, June 2012, page 13)

Example:



Parallelograms include: squares, rectangles, rhombi, or other shapes that have two pairs of parallel sides. Also, the broad category quadrilaterals include all types of parallelograms, trapezoids and other four-sided figures.

Example:

Draw a picture of a quadrilateral. Draw a picture of a rhombus.

How are they alike? How are they different?

Is a quadrilateral a rhombus? Is a rhombus a quadrilateral? Justify your thinking.

A **kite** is a quadrilateral whose four sides can be grouped into two pairs of equal-length sides that are beside each other.

The notion of congruence (“same size and same shape”) may be part of classroom conversation but the concepts of congruence and similarity do **not** appear until middle school.

**TEACHER NOTE:** In the U.S., the term “trapezoid” may have two different meanings. Research identifies these as inclusive and exclusive definitions. The inclusive definition states: A trapezoid is a quadrilateral with *at least* one pair of parallel sides. The exclusive definition states: **A trapezoid is a quadrilateral with exactly one pair of parallel sides.** With this definition, a parallelogram is not a trapezoid. North Carolina has adopted the exclusive definition. (*Progressions for the CCSSM: Geometry*, The Common Core Standards Writing Team, June 2012.)

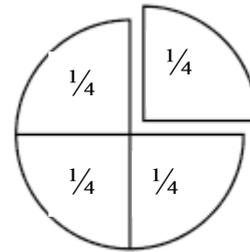
**3.G.2** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.  
*For example, partition a shape into 4 parts with equal area, and describe the area of each part as  $\frac{1}{4}$  of the area of the shape.*

In third grade students start to develop the idea of a fraction more formally, building on the idea of partitioning a whole into equal parts. The whole can be a shape such as a circle or rectangle. In Grade 4, this is extended to include wholes that are collections of objects.

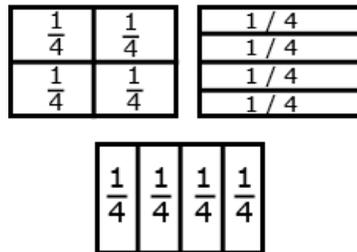
This standard also builds on students' work with fractions and area. Students are responsible for partitioning shapes into halves, thirds, fourths, sixths and eighths.

Example:

This figure was partitioned/divided into four equal parts. Each part is  $\frac{1}{4}$  of the total area of the figure.



Given a shape, students partition it into equal parts, recognizing that these parts all have the same area. They identify the fractional name of each part and are able to partition a shape into parts with equal areas in several different ways.



Some examples used in this document are from the Arizona Mathematics Education Department

## Glossary

**Table 1 Common addition and subtraction situations<sup>1</sup>**

	<b>Result Unknown</b>	<b>Change Unknown</b>	<b>Start Unknown</b>
<b>Add to</b>	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? $2 + 3 = ?$	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? $2 + ? = 5$	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? $? + 3 = 5$
	Five apples were on the table. I ate two apples. How many apples are on the table now? $5 - 2 = ?$	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? $5 - ? = 3$	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? $? - 2 = 3$
	<b>Total Unknown</b>	<b>Addend Unknown</b>	<b>Both Addends Unknown<sup>2</sup></b>
<b>Put Together/ Take Apart<sup>3</sup></b>	Three red apples and two green apples are on the table. How many apples are on the table? $3 + 2 = ?$	Five apples are on the table. Three are red and the rest are green. How many apples are green? $3 + ? = 5, 5 - 3 = ?$	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? $5 = 0 + 5, 5 = 5 + 0$ $5 = 1 + 4, 5 = 4 + 1$ $5 = 2 + 3, 5 = 3 + 2$
		<b>Difference Unknown</b>	<b>Bigger Unknown</b>
<b>Compare<sup>4</sup></b>	(“How many more?” version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy?	(Version with “more”): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have?	(Version with “more”): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have?
	(“How many fewer?” version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? $2 + ? = 5, 5 - 2 = ?$	(Version with “fewer”): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? $2 + 3 = ?, 3 + 2 = ?$	(Version with “fewer”): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? $5 - 3 = ?, ? + 3 = 5$

<sup>2</sup>These take apart situations can be used to show all the decompositions of a given number. The associated equations, which have the total on the left of the equal sign, help children understand that the = sign does not always mean makes or results in but always does mean is the same number as.

<sup>3</sup>Either addend can be unknown, so there are three variations of these problem situations. Both Addends Unknown is a productive extension of this basic situation, especially for small numbers less than or equal to 10.

<sup>4</sup>For the Bigger Unknown or Smaller Unknown situations, one version directs the correct operation (the version using more for the bigger unknown and using less for the smaller unknown). The other versions are more difficult.

<sup>1</sup>Adapted from Box 2-4 of Mathematics Learning in Early Childhood, National Research Council (2009, pp. 32, 33).

**Table 2 Common multiplication and division situations<sup>1</sup>**

	Unknown Product $3 \times 6 = ?$	Group Size Unknown ("How many in each group?" Division) $3 \times ? = 18$ , and $18 \div 3 = ?$	Number of Groups Unknown ("How many groups?" Division) $? \times 6 = 18$ , and $18 \div 6 = ?$
<b>Equal Groups</b>	There are 3 bags with 6 plums in each bag. How many plums are there in all?  <i>Measurement example.</i> You need 3 lengths of string, each 6 inches long. How much string will you need altogether?	If 18 plums are shared equally into 3 bags, then how many plums will be in each bag?  <i>Measurement example.</i> You have 18 inches of string, which you will cut into 3 equal pieces. How long will each piece of string be?	If 18 plums are to be packed 6 to a bag, then how many bags are needed?  <i>Measurement example.</i> You have 18 inches of string, which you will cut into pieces that are 6 inches long. How many pieces of string will you have?
<b>Arrays,<sup>2</sup> Area<sup>3</sup></b>	There are 3 rows of apples with 6 apples in each row. How many apples are there?  <i>Area example.</i> What is the area of a 3 cm by 6 cm rectangle?	If 18 apples are arranged into 3 equal rows, how many apples will be in each row?  <i>Area example.</i> A rectangle has area 18 square centimeters. If one side is 3 cm long, how long is a side next to it?	If 18 apples are arranged into equal rows of 6 apples, how many rows will there be?  <i>Area example.</i> A rectangle has area 18 square centimeters. If one side is 6 cm long, how long is a side next to it?
<b>Compare</b>	A blue hat costs \$6. A red hat costs 3 times as much as the blue hat. How much does the red hat cost?  <i>Measurement example.</i> A rubber band is 6 cm long. How long will the rubber band be when it is stretched to be 3 times as long?	A red hat costs \$18 and that is 3 times as much as a blue hat costs. How much does a blue hat cost?  <i>Measurement example.</i> A rubber band is stretched to be 18 cm long and that is 3 times as long as it was at first. How long was the rubber band at first?	A red hat costs \$18 and a blue hat costs \$6. How many times as much does the red hat cost as the blue hat?  <i>Measurement example.</i> A rubber band was 6 cm long at first. Now it is stretched to be 18 cm long. How many times as long is the rubber band now as it was at first?
<b>General</b>	$a \times b = ?$	$a \times ? = p$ , and $p \div a = ?$	$? \times b = p$ , and $p \div b = ?$

<sup>2</sup>The language in the array examples shows the easiest form of array problems. A harder form is to use the terms rows and columns: The apples in the grocery window are in 3 rows and 6 columns. How many apples are in there? Both forms are valuable.

<sup>3</sup>Area involves arrays of squares that have been pushed together so that there are no gaps or overlaps, so array problems include these especially important measurement situations.

<sup>1</sup>The first examples in each cell are examples of discrete things. These are easier for students and should be given before the measurement examples.

**Table 3 The properties of operations**

Here  $a$ ,  $b$  and  $c$  stand for arbitrary numbers in a given number system. The properties of operations apply to the rational number system, the real number system, and the complex number system.

<i>Associative property of addition</i>	$(a + b) + c = a + (b + c)$
<i>Commutative property of addition</i>	$a + b = b + a$
<i>Additive identity property of 0</i>	$a + 0 = 0 + a = a$
<i>Associative property of multiplication</i>	$(a \times b) \times c = a \times (b \times c)$
<i>Commutative property of multiplication</i>	$a \times b = b \times a$
<i>Multiplicative identity property of 1</i>	$a \times 1 = 1 \times a = a$
<i>Distributive property of multiplication over addition</i>	$a \times (b + c) = a \times b + a \times c$

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# Content Integration 2016-2017



**3rd**

Grade



**CANYONS**  
School District

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# CONTENT INTEGRATION (SOCIAL STUDIES & SCIENCE) CURRICULUM MAP CANYONS SCHOOL DISTRICT

## Curriculum Mapping Purpose

Canyons School District's Content Integration curriculum maps are standards-based maps driven by the Utah Core Standards. Student achievement is increased when both teachers and students know where they are going, why they are going there, and what is required of them to get there.

## Curriculum Maps are a tool for:

- **ALIGNMENT:** Provides support and coordination between concepts, skills, standards, curriculum, and assessments
- **COMMUNICATION:** Articulates expectations and learning goals for students
- **PLANNING:** Focuses instruction and targets critical information
- **COLLABORATION:** Promotes professionalism and fosters dialogue between colleagues about best practices pertaining to sequencing, unit emphasis and length, integration, and review strategies
- **SCAFFOLDED INSTRUCTION AND GROUPING STRUCTURES:** The organization of a scaffolded classroom includes whole group, small group (e.g., teacher-led skill-based, cooperative learning), partner, and independent work where students are provided support towards mastery. As students assume more responsibility for the learning, gradual support is decreased in order to shift the responsibility for learning from the teacher to the students.

# General Instructions

## Pacing

This curriculum map provides guidance for intertwining the Utah Core Standards for Social Studies and Science with the Reading Street content. Following the map will allow students to access all core standards by the end of the year. To support students' mastery of the standards, a scope and sequence was developed to address content areas. Attending to these standards will allow teachers to focus instruction for the given unit and better assess students' understanding of each standard.

## Units

The scope and sequence was correlated to the Reading Street Unit Theme and Question where applicable. Each unit represents six weeks of instruction. In most cases, there are science and social studies standards that are taught in each unit.

## Content Integration Instruction

During the Science and Social Studies content integration block, students will have the opportunity to learn about and experience science and social studies as directed by the Utah State Core curriculum. "Elementary school students learn science and social studies best when; they are involved in first-hand exploration and investigation and inquiry/process skills are nurtured, instruction builds directly on the student's conceptual framework, and when mathematics and communication skills are an integral part of instruction."

The Content integration time in the ELA Block deals with integration of science and social studies content to understand key concepts, principles, generalizations, and theories through the integration of the English Language Arts Standards. The Utah Core states: "By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades. Students also acquire the habits of reading independently and closely, which are essential to their future success."

Optimally, this portion of the day involves students reading, writing, listening and speaking about the topics they are learning about in science and social studies instruction time. Teachers can use this time to provide background knowledge and learning activities to prepare their students for their Science/Social Studies instruction. Ideas and resources for integration can be found in your Content Integration Map.

## Scheduling Suggestions

Ideally, the Science and Social Studies block will be schedule back-to-back with the Content Integration time in the ELA block for a fluid flow from building background knowledge in the ELA block to the experiential learning in the Science and Social Studies block. If schedule back-to-back, this block of time can be adjusted so that laboratories, modeling, simulations, and other activities that take extended amounts of time can be incorporated in the day.

## Example Performance Assessment

Example performance assessments have been included in the map as ideas on different types of assessments to determine mastery. An example has been listed for every objective from the Utah Science and Social Studies core.

## Guidance for Integration

Ideas for how to incorporate literacy, math, art, and other standards with the Social Studies and Science standards have been included in this portion of the map. Links on where to find resources and lesson plans have been provided.

## SALTA Materials Content Integration

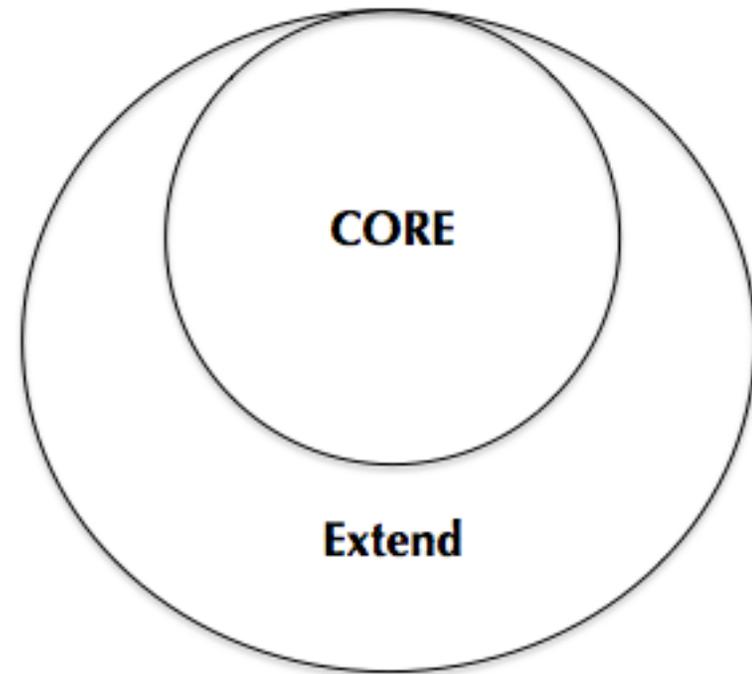
### **CORE**

All SALTA students are taught the Utah **Core** standards. Core standards are evidence-based, aligned with expectations for success in college and the workplace, and will allow students to compete internationally. The new standards stress rigor, depth, clarity, coherence, and 21<sup>st</sup> century skills, to prepare students for college and careers.

### **EXTEND**

Extension of core standards provides students with activities that are added to **CORE** to enlarge or deepen understanding. Examples of **EXTEND** include:

- Science Exemplars





*Exemplars* has helped schools and districts in 50 states and 25 foreign countries to meet the challenges of national, state and local standards.

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## What Is Exemplars?

Increasingly, schools, districts and states are adopting new standards and revising their science curriculums. Teachers, curriculum coordinators and administrators are grappling with how to incorporate them, along with new authentic assessments and instructional strategies into an already challenging classroom schedule.

We started *Exemplars* to respond to the many teachers we have worked with who have told us how badly they want to implement standards-based assessment and instruction in their classrooms and how challenging it is.

The goal of *Exemplars* is to provide performance assessment inquiry tasks, scoring rubrics, benchmark papers and tips to make it more manageable for educators to implement new standards and this approach to assessment.

*Exemplars* began in 1993 with authentic assessment in mathematics for grades K–8 to help teachers, schools and districts implement the NCTM standards. It was created with the help of classroom teachers, drawn nationwide from model practitioners – teachers who have been through the process of setting standards, designing authentic inquiry tasks and using rubrics to assess student performance. It has helped schools and districts in 50 states and 25 foreign countries to meet the challenges of national, state and local standards. Response to this teacher-developed, classroom-tested model has been enthusiastic. It is viewed as “so user friendly and non-threatening” that teachers enjoy working with it.

In 1993, *Exemplars* added Mathematics 9–12, and in 1995 we added Science, K–8. RWR (Reading, Writing and Research in the Content Areas) was published for grades 5–8 in 1999. Our newest products include Developing Writers and Spanish *Exemplars*.



Our state and provincial alignments can be viewed online at <http://www.exemplars.com/resources/alignments/index.html>

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## Science Exemplars

*Science Exemplars* is based on national standards and is aligned to state and provincial standards; Benchmarks for Science Literacy (Project 2061 of the American Association for the Advancement of Science); National Science Education Standards (National Research Council); and The New Standards Project Science Performance Standards. Our state and provincial alignments can be viewed online at <http://www.exemplars.com/resources/alignments/index.html>

*Science Exemplars* is focused on the big ideas of science beginning at the K–2 level and is concerned with content as well as process. (See the description of *Exemplars Inquiry Tasks and Rubric* on pages 6-18.)

*Science Exemplars* is a vehicle for improving assessment and instruction. It improves assessment by providing:

- Inquiry-based assessment tasks
- Rubrics that are aligned to state and national standards in science
- Benchmark papers exemplifying four levels of science performance; Novice, Apprentice, Practitioner and Expert

It improves instruction by:

- Making standards clear to students
- Encouraging students to self-assess
- Giving students the opportunity to work as scientists on interesting investigations and inquiry tasks
- Providing teachers with support by relating each task to the big ideas of science; the context for the problem; interdisciplinary links; and possible solutions

### How Do People Use Exemplars?

People use *Exemplars* in many different ways.

- Teachers use *Exemplars* for both assessment and instruction, depending on the circumstances. The tasks in *Exemplars* are inquiry-based performance assessments. They can be used to help **teach** students skills and concepts and to **assess** students' understanding of skills and concepts.

*Exemplars* include:

- **Preassessments** – given at the beginning of a unit to assess what students already know
  - **Formative assessments** – given to inform instruction and assess how students are progressing
  - **Culminating or Summative assessments** – given at the end of the unit to assess student understanding
- 
- *Exemplars* engaging inquiry tasks with rubrics tied to national, state and provincial standards, and benchmark papers at Novice, Apprentice, Practitioner and Expert levels make *Exemplars* an ideal vehicle for **professional development**.
  - Administrators have found *Exemplars* to be a powerful way of reporting student performance based on national, state and provincial standards to their communities.
  - Students use *Exemplars* to learn the practice of science and the process of self-assessment.
  - Principals, curriculum coordinators, content area supervisors and staff developers have found *Exemplars* to be an effective way of helping teachers begin to understand standards and performance assessment.



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Teachers use *Exemplars* for both assessment and instruction. The tasks in *Exemplars* are inquiry-based performance assessments. They can be used to help **teach** students skills and concepts and to **assess** students' understanding of skills and concepts.



Many teachers will find unifying concepts a useful way to connect one lesson or unit to others throughout the year.

## A Guide for Exemplars Science Inquiry Tasks

*Exemplars* tasks are designed for different developmental levels, and they have been grouped by grades K–2, 3–5 and 6–8. Each task is written with one of these developmental levels in mind. Often, for many tasks, adaptations (in materials, data collection procedures and tools, representations used, data analysis, etc.) can be made for students with more or less sophisticated levels of skills and understanding. Student work samples are benchmarked for the identified grade levels and the tasks as written.

### Each task includes the following:

- **Inquiry Task and Essential Question to be Answered**  
Describes what science concepts this investigation explores and which science process skills are reinforced during the task. The Essential Question provides the lesson focus or the question students are trying to answer.
- **Big Ideas and Unifying Concepts**  
While no single lesson can address the “big ideas” of science, we have included some unifying concepts toward which particular tasks can help build an understanding in relation to other science lessons. Many teachers will find this a useful way to connect one lesson or unit to others throughout the year. Unifying concepts, identified by the national science standards, include:
  - Change-Constancy
  - Cause-Effect
  - Order and Organization
  - Models
  - Systems
  - Interdependence
  - Evolution and Equilibrium
  - Form and Function
  - Design
  - Patterns
  - Scale

- **Science Content**

Science content areas that are addressed and assessed through *Exemplars* Science Inquiry Tasks are identified under five broad headings:

- **Physical Science Concepts** – properties of matter, motion and forces, transfer and transformation of energy
- **Life Science Concepts** – structure and function, reproduction and heredity, regulation and behavior, population and ecosystems, evolution, diversity and adaptations
- **Design Technology** – use of tools, invention, design constraints and advantages, impact on human and other resources
- **Science in Personal and Societal Perspectives** – personal health; populations, resources and environments; natural hazards; risks and benefits; and science, technology and society
- **Earth Science** – earth systems; earth’s history; solar system; and natural resource management

- **Time Required for the Task**

Time is estimated and is based upon the teacher’s field test.

- **Context**

Describes what the students have already been doing in science to lay the groundwork for this activity and what prior knowledge and skills they might draw upon to accomplish the task.

- **What the Task Accomplishes**

Describes how this investigation task will teach, reinforce, and assess the skills and knowledge identified in the corresponding science standards.

- **How the Student Will Investigate**

Describes how students will be engaged during the task. Includes how the teacher might guide exploration, ask questions, and model skills needed for successful completion of the task.

- **Interdisciplinary Links and Extensions**

Includes suggested topics and activities that can extend the learning from this activity to other content areas



Children are natural inquirers, they still need to be taught the specific skills of inquiry so that they can begin to think and act as scientists do.

- **Teaching Tips and Guiding Questions**

Includes ideas to guide the inquiry process during the lesson(s). While the children engage in exploration, suggested questions are provided to guide their thinking and lead them to the big ideas. Good questions ensure that students build understanding while they manipulate materials and record information. Questions should move from the specific (How is... different from...?) to the general (Can you state a “rule” about...? Do all materials... in the same way?)

- **Concepts to be Assessed**

Identifies unifying concepts (big ideas) and science concepts to be assessed using the *Science Exemplars* Rubric criterion: Science Concepts and Related Content. This brief overview calls attention to what conceptual knowledge and scientific terminology students will demonstrate an understanding and use of in their work samples.

For example:

- Observing and explaining reactions of bending and not bending (cause-effect);
- Observing and comparing physical properties of matter (comparing the weight, size, and flexibility of solids);
- Classifying materials according to properties, etc.

- **Skills to be Developed**

Identifies specific science process skills to be assessed using the *Science Exemplars* Rubric (under the criteria: Scientific Procedures and Reasoning Strategies and Scientific Communication/Using Data). This brief overview calls attention to scientific skills students will demonstrate an understanding and use of in their work samples. For example: Observing, Predicting, Classifying, Recording, Communicating, Measuring, etc. needed to complete the task.

- **Links to Science (and other) Standards**

Identifies connections to science (and sometimes mathematics) standards.

For example:

- *Scientific Method*: Students describe, predict, investigate and explain phenomena.
- *Scientific Theory*: Students look for evidence that explains why things happen, and modify explanations when new observations are made.
- *Physical Science – Properties of Matter*: Students describe and sort objects and materials according to observations of similarities, and differences of their physical properties (size, weight, color, shape, texture and flexibility).

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## Exemplars

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- **Suggested Materials**  
Suggests any advanced preparation and materials needed for the inquiry task to be carried out successfully.
- **Possible Solutions**  
Describes possible student solutions – what they should demonstrate; the ways they should organize their data; and possible conclusions they could make.
- **Rubric and Benchmarks**  
Describes what is required to achieve each level of performance for a particular task and annotated samples of student work for each of the four performance levels: Novice, Apprentice, Practitioner and Expert. Descriptions attempt to point to the distinctions to look for when using the *Science Exemplars* Rubric to assess different levels of student learning and understanding.

## About Student Self-Assessment



You can find copies of *Exemplars* rubrics in your subscriptions or on your CDs. Rubrics may also be downloaded from our web site at [www.exemplars.com/resources/rubrics/index.html](http://www.exemplars.com/resources/rubrics/index.html)

As teachers begin to use the *Science Exemplars* Rubric (pgs. 14–15) to assess their students' work, we encourage them to teach their students how to assess their own progress and performance through student rubrics. These rubrics simplify the language of the teacher's rubric, so that students can understand the criteria and become more involved in monitoring their own progress, leading them to become more self-directed learners.

The **primary student version** (pg. 16) of the *Science Exemplars* Rubric uses "friendly" visual representations to help limited readers understand the criteria for performance. The language in the rubric describes (in a positive way) what is happening, rather than what is not happening. For example, the Novice level states that, "I did not use tools YET." This implies that it can and will happen and gives some credit for early efforts. Primary students can use this rubric when conferencing with the teacher and peers about their work as they progress through a task. It can also be used with parents when students take work home to share.

The **intermediate version** (pgs. 17–18) of the student rubric – in worksheet form is presented in a different format than the teacher's rubric. It provides the four criteria, a description of expectations for each criterion, and a space where students are asked to provide evidence that they have met each criterion. This rubric also provides the opportunity for students to customize the rubric for each different inquiry task by filling in the specific tools to be used, the vocabulary and terms that are important, etc. Rather than having students simply state that they have met the criteria, this rubric asks them to note where the **evidence** can be found. Some teachers have students color code each criterion (blue dot for Tools, red dot for Reasoning, etc.) or use a shape (star for Tools, triangle for Reasoning, etc.) and place that code in their lab reports / science journals. Other teachers ask that students write the page or place where the evidence can be found. This process has a double benefit: students spend time documenting their own evidence for meeting standards and teachers save time in looking for it, shifting the responsibility to the student. This rubric is also effective for parent and peer conferencing.

It has been our experience, that students at all grade levels can learn to self-assess, using both work samples from other students (peers and/or student work samples from *Exemplars*) and their own work. The key to student self-assessment is clear consistent criteria, written with descriptive rather than evaluative language, which is presented at an appropriate time during the learning process.

### Introducing Rubrics

A rubric is an assessment guide that reflects content standards and performance standards. An assessment rubric tells us what is important,

defines what work meets a standard, and allows us to distinguish between different levels of performance.

Students need to understand the rubric that is being used to assess their performance. Teachers often begin this understanding by developing rubrics with students that **do not** address science. Together, they develop rubrics around classroom management, playground behavior, homework, lunchroom behavior, following criteria with a substitute teacher, etc. Developing rubrics with students to assess the best chocolate chip cookie, sneaker, crayon, etc. is also an informative activity that helps students understand performance levels. After building a number of rubrics with students, a teacher can introduce the *Exemplars Science* rubric (pages 15–16). Since the students will have an understanding of what an assessment guide is, they will be ready to focus on the science criteria and performance levels of the rubric.

We have included a sample rubric (page 13) developed by a teacher which assesses lunchroom behavior. It is very important to have your students develop their own rubric first. Sharing, adjusting, or using the rubric on page 13 can be done after your students have experienced the process for themselves.

The rubrics on pages 52–55 can be used by individual teachers or teams of teachers assessing student work. In the left-hand column the teacher records the evidence they see in the student work that justifies placing the work at that particular level. In the right-hand column the teacher would record the action(s) that can be taken to help the student move to the next performance level.

### Guidelines for Using Student Rubrics

- **A Picture is Worth a Thousand Words:** Introduce rubric criteria and descriptions with examples of student work or demonstrations of what performance might look like. Provide several possible ways to meet the standards if they do exist. Guide students to think through the assessment process, looking for evidence. You may choose to introduce one or two criteria at a time before moving on, or introduce all of them at once.
- **Practice Makes Perfect:** Provide opportunities for students to use rubrics to conference with peers, teachers and parents about their work and the work of others. Assessment (and self-assessment) will become a positive experience if students begin to feel that they have control over correcting and revising work to meet standards.
- **Be Open to Suggestions From Students:** The more students understand the criteria, the more they will offer suggestions for other assessments. Guide them to use descriptive rather than evaluative language (avoid words like good, nice, poor) that clearly states what is happening.
- **Be Consistent:** We suggest that you introduce clear criteria and post them in the room as a reminder throughout the year of what good inquiry-based science involves. Students should have their own copies of student rubrics to refer to, so they can track their progress in each criterion as part of their science portfolios for the year.



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## What are the Benefits of Peer and Self-Assessment?

- **Students internalize the criteria for high-quality work.**  
 Students who see clear models of work that meet the standards and understand why the work meets the standards will begin to make comparisons between their performance and the *Exemplars* presented. As science inquiry tasks become more complex and open ended, it is essential that more than one model be provided to assure that students understand several possible ways to meet the standards.
- **Students understand the process of getting to the standard.**  
 Rubrics should show students where they have been, where they are now, and where they need to be at the end of the task. Describing progressive levels of performance becomes a guide for the journey, rather than a blind walk through an assessment maze.
- **Teachers involve students in the monitoring process and shift some of the responsibility for documenting and justifying learning to the students.**  
 Research has demonstrated that high-performing learners do the following:
 
  - self-monitor,
  - self-correct, and
  - use feedback from peers to guide their learning process.
 Student rubrics, written to identify the essence of the expected learning, can be an excellent vehicle for reflective thinking and peer conferencing.
- **Parents understand expectations and assessment criteria.**  
 When students can articulate to their parents (before, during and at the end of the task), what the standards of performance are, a clear and positive message is received. Parents generally want to support their child’s learning and feel helpless, sometimes, because they are unsure of what open-ended tasks are intended to teach. Student rubrics remove the educational jargon yet still describe meaningful learning. Many teachers find rubrics useful during parent conferences as they review science work samples.
- **Students understand that standards are “real” – achievable – and that exceeding the standard is both possible and desirable.**  
 Traditionally, many “good students” have done only what has been asked of them. The *Science Exemplars* rubrics define high-quality performance at the Practitioner level but also suggest that more learning is possible. Excellence is not quite as subjective as it has been in the past and students are encouraged to begin to define why their work exceeds the standards.



Students, teachers and parents all benefit from peer and self assessment.

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## LUNCHROOM RUBRIC—BEHAVIOR

Criteria	Level 1	Level 2	Level 3
<b>Waiting-in-Line</b>	Outside voice Touching, pushing, shoving Frontsies/backsies	Inside voice Occasional holding spots for an individual or cuts in line	Stage whispers Stays in space Joins line at end as enters cafeteria
<b>Table Manners</b>	<u>Rude</u> Stealing seat Eating off other's plate Poking/grabbing Throwing food Singing Wandering off	<u>Family</u> Kind words Elbows allowed Using fingers Eating at spot but standing	<u>Restaurant</u> Using please, thank you, excuse me No elbows No singing Chews with mouth closed Using utensils Staying in seat
<b>Noise Level</b>	Outside voice	Inside voice	Quiet inside voice (just above a whisper called a "Stage whisper")
<b>Dismissal Prep</b>	Dirty table/floor No recycling	Mostly clean table Mostly clean floor Some recycling	Clean table Clean floor Correct recycling

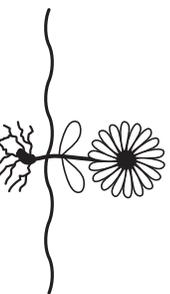
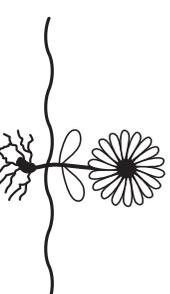
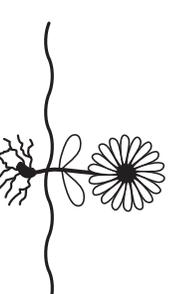
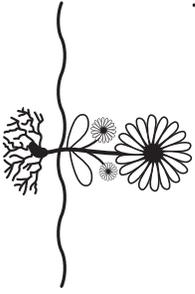
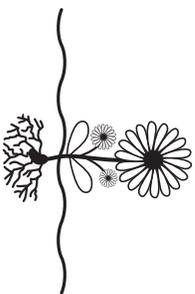
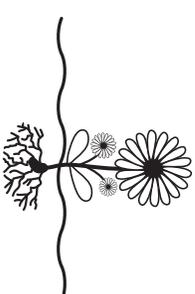
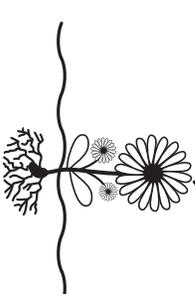
# Exemplars Science Rubric

Level	Scientific Tools and Technologies	Scientific Procedures and Reasoning Strategies	Scientific Communication/ Using Data	Scientific Concepts and Related Content
<b>Novice</b>	<ul style="list-style-type: none"> <li>Did not use appropriate scientific tools or technologies (e.g., rulers, pH paper, hand lens, computer, reference materials, etc.) to gather data (via measuring and observing).</li> </ul>	<ul style="list-style-type: none"> <li>No evidence of a strategy or procedure, or used a strategy that did not bring about successful completion of task/investigation.</li> <li>No evidence of scientific reasoning used.</li> <li>There were so many errors in the process of investigation that the task could not be completed.</li> </ul>	<ul style="list-style-type: none"> <li>No explanation, or the explanation could not be understood, or was unrelated to the task/investigation.</li> <li>Did not use, or inappropriately used scientific representations and notation (e.g. symbols, diagrams, graphs, tables, etc.).</li> <li>No conclusion stated, or no data recorded.</li> </ul>	<ul style="list-style-type: none"> <li>No use, or mostly inappropriate use, of scientific terminology.</li> <li>No mention or inappropriate references to relevant scientific concepts, principles, or theories (big ideas).</li> <li>Some evidence of understanding observable characteristics and properties of objects, organisms, and/or materials used.</li> </ul>
<b>Apprentice</b>	<ul style="list-style-type: none"> <li>Attempted to use appropriate tools and technologies (e.g., rulers, pH paper, hand lens, computer, reference materials, etc.) to gather data (via measuring and observing) but some information was inaccurate or incomplete.</li> </ul>	<ul style="list-style-type: none"> <li>Used a strategy that was somewhat useful, leading to partial completion of the task/investigation.</li> <li>Some evidence of scientific reasoning used.</li> <li>Attempted but could not completely carry out testing a question, recording all data and stating conclusions.</li> </ul>	<ul style="list-style-type: none"> <li>An incomplete explanation or explanation not clearly presented (e.g., out of sequence, missing step).</li> <li>Attempted to use appropriate scientific representations and notations, but were incomplete (e.g., no labels on chart).</li> <li>Conclusions not supported or were only partly supported by data.</li> </ul>	<ul style="list-style-type: none"> <li>Used some relevant scientific terminology.</li> <li>Minimal reference to relevant scientific concepts, principles, or theories (big ideas).</li> <li>Evidence of understanding observable characteristics and properties of objects, organisms, and/or materials used.</li> </ul>

# Exemplars Science Rubric

Level	Scientific Tools and Technologies	Scientific Procedures and Reasoning Strategies	Scientific Communication/ Using Data	Scientific Concepts and Related Content
<b>Practitioner</b>	<ul style="list-style-type: none"> <li>Effectively used some appropriate tools and technologies (e.g., rulers, pH paper, hand lens, computer, reference materials, etc.) to gather and analyze data, with only minor errors.</li> </ul>	<ul style="list-style-type: none"> <li>Used a strategy that led to completion of the investigation / task.</li> <li>Recorded all data.</li> <li>Used effective scientific reasoning.</li> <li>Framed or used testable questions, conducted experiment, and supported results with data.</li> </ul>	<ul style="list-style-type: none"> <li>A clear explanation was presented.</li> <li>Effectively used scientific representations and notations to organize and display information.</li> <li>Appropriately used data to support conclusions.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriately used scientific terminology.</li> <li>Provided evidence of understanding of relevant scientific concepts, principles or theories (big ideas).</li> <li>Evidence of understanding observable characteristics and properties of objects, organisms, and/or materials used.</li> </ul>
<b>Expert</b>	<ul style="list-style-type: none"> <li>Accurately and proficiently used all appropriate tools and technologies (e.g., rulers, pH paper, hand lens, computer, reference materials, etc.) to gather and analyze data.</li> </ul>	<ul style="list-style-type: none"> <li>Used a sophisticated strategy and revised strategy where appropriate to complete the task.</li> <li>Employed refined and complex reasoning and demonstrated understanding of cause and effect.</li> <li>Applied scientific method accurately: (framed testable questions, designed experiment, gathered and recorded data, analyzed data, and verified results).</li> </ul>	<ul style="list-style-type: none"> <li>Provided clear, effective explanation detailing how the task was carried out. The reader does not need to infer how and why decisions were made.</li> <li>Precisely and appropriately used multiple scientific representations and notations to organize and display information.</li> <li>Interpretation of data supported conclusions, and raised new questions or was applied to new contexts.</li> <li>Disagreements with data resolved when appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>Precisely and appropriately used scientific terminology.</li> <li>Provided evidence of in-depth, sophisticated understanding of relevant scientific concepts, principles or theories (big ideas).</li> <li>Revised prior misconceptions when appropriate.</li> <li>Observable characteristics and properties of objects, organisms, and/or materials used went beyond the task / investigation to make other connections or extend thinking.</li> </ul>

# Exemplars® Primary Science Rubric

Level	Science Tools	Science Concepts	Reasoning Strategies	Communication
<b>Novice</b> Getting started No or little understanding	I did not use science tools yet. I have no data. 	I do not get it yet. 	I mixed up my steps. 	I did not record or share my ideas. 
<b>Apprentice</b> Almost Student has some understanding	I tried to use some science tools. My data is started. 	I get some of it. 	I took steps. 	I started to record and share my ideas. 
<b>Practitioner</b> Got it! Strong understanding Meets the standard	I used science tools. My data is complete. 	I get all of it. 	I used organized steps. I made more connections. 	I recorded and shared my ideas. 
<b>Expert</b> Wow, awesome! Exceptional understanding Exceeds the standard	I made excellent use of all science tools. My data is complete. I can demonstrate. 	I get all of it. I can teach it to a friend. My ideas shine! 	I used organized steps. I made more connections. 	I recorded and shared my ideas. I also recorded details and asked questions. 

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# Intermediate Student Rubric

Criteria	What I Need To Do	Evidence of What I Did
<p>Scientific Communication/ Using Data</p>	<p>My data will be in a chart, table, graph, or And will be labeled.</p> <p>My data needs to prove my exploration.</p> <p>Someone can read my explanation and Understand it.</p>	
<p>Scientific Concepts And related content</p>	<p>Terms I should use and understand:</p> <p>Things I need to be sure to observe or pay attention to:</p> <p>A "Big Idea" that might help me to connect my learning to other things I know or want to learn more about.</p>	

## Intermediate Student Rubric

Criteria	To Meet the Standard: What I need To Do	Evidence of what I Did
<b>Scientific Tools and Technologies</b>	These are the tools I need to use to collect data and do the task:  I need to check for mistakes.	
<b>Scientific Procedures and Reasoning Strategies</b>	My hypothesis is:  To complete the task I need to follow these steps:  I need to record these dates:	



When planning, teaching or assessing a science unit, it is important for teachers to consider the varying stages of development in children so that appropriate activities and assessments can be chosen.

## Science Education and Developmental Stages of Children Ages 5–11

The information that follows describes the mental development of children between the ages of five and 11. It must be remembered that although children go through these stages in the same order, they do not go through them at the same rates. Some children achieve the later stages at an early age. Some children stay in the early stages for quite a time. All children experience an overlap of stages. Whereas a child may operate in a later stage in one area, he/she may operate in an earlier stage in another area. The stages illustrated conform to current research about children's thinking (learning). When planning, teaching or assessing a science unit, it is important for teachers to consider these stages so that developmentally appropriate activities and assessments are designed for students. Suggestions on how to do this are included along with descriptions of the various developmental levels of children.

## Science Education and Developmental Stages of Children Grades K–1

### Characteristics

### Implications and Appropriate Learning Activities

### Pre-operations Stage – Period of Representational and Pre-logical Thought Ages 5–7

- Reasoning is confined to appearance, or what the child sees happening
- Reasoning is not based on adult logic
- Learning is still largely perceptual
- Lacks the concepts of reversibility and conservation of matter
- Discovers that some things can stand for other things – The child's thinking is no longer tied to external actions and is now internalized
- This period is dominated by representational activity and a rapid development of spoken language
- Willingness to ask questions
- Willingness to handle both living and non-living materials
- Enjoyment in using all the senses for exploring and discriminating
- Willingness to collect material for observation or investigation
- Awareness of changes which take place as time passes
- Based on concrete experiences and the immediate environment
- Involve a variety of integrated experiences
- Short exploratory activities

## Science Education and Developmental Stages of Children Grades 2–5

### Characteristics

Implications and Appropriate Learning Activities

### Concrete Operational Stage – Period of Concrete Logical Thought

Ages 7–11

- May include the characteristics of the younger age group
- Learns in concrete terms and obtains concrete information through manipulation of materials and equipment
- Can organize, test and express his/her results in words, pictures or number symbols
- Is capable of demonstrating logical thinking in relation to physical objects
- Is able to mentally hold two or more variables at a time when studying objects
- Has acquired the capacity of reversibility which allows him/her to mentally reverse an action that he/she had previously only done physically
- Is more sociocentric
- Is able to conserve certain properties of objects
- Is able to classify and order objects using one variable
- Is able to think of physically absent things that are based on vivid images of past experience – The child's thinking is restricted to concrete things rather than ideas
- Uses trial and error to draw conclusions about variables
- Desire to find out things for himself/herself
- Willingness to participate in group work
- Appreciation of the need to participate in group work.
- Awareness that there are various ways of testing out ideas and making observations
- Willingness to wait and to keep records in order to observe changes in things
- Enjoys exploring the variety of learning things in the environment
- Interested in discussing things
- Based on concrete experiences and a variety of hands-on materials
- Variety of integrated experiences
- May include cooperative groupings
- Units of study should have more depth than in K–1
- Journals or logs should be used to record information, observations, and to promote critical thinking
- Group discussion should be used to promote involvement and critical thinking
- Should include more discovery along with teacher lecture

## Getting Started with Science Portfolios

### Ideas for Tracking Performance Over Time

*Science Exemplars* is designed to make it possible for individual teachers to get started with excellent standards-based, performance assessment and instruction. Each science inquiry task leads teachers through the process of assessing their students, linking assessments to science (and sometimes mathematics) standards, and making sense of the results. While searching the *Science Exemplars* CD-Rom makes it easy for teachers to find problems that fit with particular units of study, we have not yet addressed effective ways to track individual and class performance over time. This section will focus on different aspects of how to successfully implement science portfolios in your classroom.

A portfolio is more than a container to hold and organize student work. Rather, it is a collection of work samples and evidence of learning over time. Without ways to manage and reflect upon what goes into the portfolio, even the best intentions for portfolios can be lost in the busy, day-to-day activity of a science classroom.

Portfolios should:

- Involve students in self- and peer-assessment;
- Provide multiple opportunities (and modes) for students to show evidence of learning and conceptual understanding;
- Guide students to reflect upon ways to improve performance; and
- Be based on some predetermined criteria for collecting that evidence.

Many teachers already use a variety of creative and effective ways to organize student work in science – science journals, learning logs, activity folders, etc. There is no reason to discontinue using anything that works for you now. What we will do is provide you with assessment guidelines; assessment tasks that can be used several times during the year; and management strategies, using the four broad criteria on the *Science Exemplars* Rubric (pgs. 14–15), to track and reflect upon progress and learning over time.

For an example of an assessment task used throughout the year to chart students' progress, please refer to the task *What Is Science?*. This lesson can be found on *The Best of Science Exemplars* CD.



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A portfolio is more than a container to hold and organize student work. Rather, it is a collection of work samples and evidence of learning over time.

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## Effective Classroom Assessment Practices and Guidelines

We suggest four broad guidelines to act as a framework for all of your classroom assessment practices, including the use of science portfolios. They are defined by areas on which to place more or less emphasis and incorporate best practices for science instruction.

### 1. Clearly define and communicate expectations and standards for assessment.

More of...	Less of...
<ul style="list-style-type: none"> <li>• Focus on quality, excellence, and meaningful content</li> <li>• Clear, specific language describing desired learning outcomes, process and products</li> <li>• Clear links to national, state, and district standards for content learning and process skills</li> <li>• Activities are selected to help students demonstrate learning/meeting standards</li> <li>• Student and parent involvement in the assessment process as part of instruction and learning (e.g., before, during and after assignments)</li> <li>• Defining progressive developmental levels, with benchmarks, from Novice level to a level that exceeds the standard</li> <li>• Open posting of standards, benchmarks and assessment criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on perfection and “right” answers</li> <li>• Vague, evaluative, subjective language (e.g. words like: poor, good or assigning letter grades without consistency)</li> <li>• Activities are the means and the ends</li> <li>• Evaluation criteria developed solely by and known only by the teacher/text developer</li> </ul>

**2. Use formal and informal assessment strategies/methods to evaluate and ensure the continuous development of every learner and to communicate student progress knowledgeably.**

<b>More of...</b>	<b>Less of...</b>
<ul style="list-style-type: none"> <li>• Use of variety of modes and artifacts for communicating understanding to teachers, peers, and self</li> <li>• Collect work samples over time that demonstrate learning and conceptual understanding</li> <li>• Application of prior learning to new tasks/situations and real-world problems</li> <li>• Solving of student-generated problems/researchable questions to demonstrate learning and understanding</li> <li>• Products developed through cooperative learning groups with expectations for individual accountability</li> <li>• On-going assessment of all stages of the inquiry process including, thorough teacher observations and questioning; graphic organizers; peer feedback; student self-assessment of learning logs, etc.</li> <li>• Use of manipulative and appropriate scientific instruments and technologies to assess student skills and understanding in collecting and analyzing data</li> </ul>	<ul style="list-style-type: none"> <li>• Only verbal/written modes accepted</li> <li>• Use of a single assessment or a single type of assessment for an entire unit of study, usually at the end</li> <li>• Use of formulas and procedures out of context</li> <li>• Sole use of teacher/text-generated problems to be solved</li> <li>• Individual products and performances as sole means of evaluating learning</li> <li>• End-of-chapter tests, short answer tests, etc. as sole means for evaluating progress</li> <li>• Sole use of pencil and paper tests</li> </ul>

3. Use assessment strategies to involve learners in self-assessment activities.

More of...	Less of...
<ul style="list-style-type: none"> <li>• Teacher modeling of self-assessment; “thinking aloud” with students; using benchmark work to teach students to assess</li> <li>• Learners monitoring individual and group progress over time</li> <li>• Use of performance standards as the basis for peer conferencing and self-reflection activities</li> <li>• Student-centered language in assessment tools and practices; descriptive rather than subjective</li> <li>• Discourse between students and teachers regarding quality of work – before, during, and after assignments to promote continuous learning</li> <li>• Student input in defining standards and expectations and designing assessment tools</li> <li>• Encouragement for student understanding of strengths, needs and past performances to set personal learning goals</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher providing all/the only feedback to students on performance/ products</li> <li>• Lack of continuity between assessments of skills and concepts</li> <li>• Educational jargon in assessment tools</li> <li>• Non-specific feedback on progress (e.g., “nice work”) which does not guide improvement or reflection</li> <li>• Adults setting all learning goals for students</li> </ul>

4. Use a variety of assessment methods in order to continually monitor, reflect upon and adapt instructional practices to meet learner needs.

More of...	Less of...
<ul style="list-style-type: none"><li>• Student learning/ performance results drive instructional decisions</li><li>• Use of on-going assessments to structure flexible groupings and mini lessons for those who need them</li><li>• Use of embedded assessments as part of the instructional process</li><li>• Use of conferencing with students to develop standards and identify needs</li></ul>	<ul style="list-style-type: none"><li>• Use of assessments solely for grading, ranking and reporting</li></ul>



The *Science Exemplars* rubric is designed as an analytic rubric that can be used both holistically and analytically. The annotated work samples that we provide with the tasks are scored **holistically**, that is to say that we use all four criteria to determine one level of performance: Novice, Apprentice, Practitioner or Expert.

## Analytic and Holistic Scoring Rubrics: What is the Difference?

The *Science Exemplars* rubric (pgs. 14-15) identifies four criteria for assessing student performance.

Dimensions of the rubric include:

- Scientific Tools and Technologies
- Scientific Procedures and Reasoning Strategies
- Scientific Communication
- Scientific Concepts and Related Science Content

*Science Exemplars* tasks focus on scientific investigation and inquiry. Students are encouraged to develop strategies to test their ideas; to use scientific tools of technology to gather and analyze data; to communicate their understanding by explaining, organizing data and/or drawing conclusions; to use scientific terms and facts appropriately; and to connect scientific terms and facts to the “big ideas” of science – science concepts. The annotated work samples that we provide with the tasks are scored **holistically**, that is to say that we use all four criteria to determine one level of performance: Novice, Apprentice, Practitioner or Expert.

**Levels of Performance** describe how students might typically demonstrate their understanding of the inquiry task or how they approach the investigation. It is possible for a student to score higher on one criterion than another while working through a complex task. This often causes teachers to question scoring a piece of work holistically.

**The greatest advantages to holistic scoring are:**

1. To be placed at a particular performance level, the student needs to demonstrate a minimum of mastery of all four criteria for that level; and
2. There is greater scoring reliability between different teachers using the same rubric to score the same student work.

The greatest disadvantage with holistic scoring is that students are sometimes unclear about how to improve their performance.



**Analytic** scoring takes each of the four criteria and assesses it as separate from the rest. For example, a student could be at a Novice level in use of tools, but at the Apprentice level for scientific procedures. Both students and teachers can use the descriptions in the analytic rubric, throughout the learning process, to determine how to improve performance in each of the four areas (Scientific Tools and Technologies, Scientific Procedures and Reasoning Strategies, Scientific Communication and Scientific Concepts and Related Science Content).

**The advantages to scoring analytically are:**

1. Teachers can focus instruction and assessment on one (or a few) criterion at a time;
2. Feedback to students is specific enough to assist students in improving performance; and
3. Patterns of strengths and weaknesses can be seen more easily.

**The disadvantages might be:**

1. It may take longer to assess each criterion separately if all are addressed in a complex task.

**The *Science Exemplars* rubric is designed as an analytic rubric that can be used both holistically and analytically.** We suggest continuing to use the holistically-scored student work samples in *Science Exemplars* to inform instructional and assessment practices in your classroom. Because portfolios track progress over time, we suggest using a management tool that allows you to record student progress analytically. (We have included two versions on the following pages.)

Each student would have a page like one of these in his/her science portfolio. As tasks are completed, the date/topic (e.g., “9/14/98 – Insect Homes”) and the performance levels (Novice–Expert) are recorded. A brief conference is held with the student to fill in the “Areas to Work On” section. (Even an Expert can improve, so use this to stress excellence, not perfection.) “Areas to Work On” can include: more practice with a measuring device (Scientific Tools), targeting specific process skills (Scientific Procedures), providing models for better data organization (Scientific Communication), and/or using a science vocabulary guide when writing conclusions (Scientific Concepts). The student’s current performance should drive these indicators.

At the end of the marking period, you, students and parents will have a map for identifying strengths and areas of need. Personal learning goals and meaningful practice can be developed once patterns have been identified. In time, peers should be able to conference in small groups to assist each other.

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Science Portfolio for \_\_\_\_\_

Dates \_\_\_\_\_

For each Science Inquiry task, your performance will be recorded for the four criteria at the top. We will conference about ways to improve and the progress you are making.

Levels achieved	Scientific Tools and Technologies	Scientific Procedures & Reasoning Strategies	Scientific Communication / Using data	Scientific Concepts & Related Content	Areas to Work on
Novice					
Apprentice					
Practitioner					
Expert					
Comments about progress					

Science Portfolio for \_\_\_\_\_ Dates \_\_\_\_\_

For each Science Inquiry task, your performance will be recorded for the four criteria at the top. We will conference about ways to improve and the progress you are making.

\*NAPE N=Novice A=Apprentice P=Practitioner E=Expert

Task/Date	Scientific Tools and Technologies	Scientific Procedures & Reasoning Strategies	Scientific Communication/Using data	Scientific Concepts & Related Content	Areas to Work on
	N A P E	N A P E	N A P E	N A P E	N A P E
	N A P E	N A P E	N A P E	N A P E	N A P E
	N A P E	N A P E	N A P E	N A P E	N A P E
	N A P E	N A P E	N A P E	N A P E	N A P E
Comments about Progress					

## Strategies for Successful Cooperative Inquiry

Providing structure, guidance, and ongoing team-building activities are essential as you begin to have your students work in teams, rather than just working in groups. In *Science Exemplars*, there are a variety of group inquiry tasks and group assessment ideas to get you started. We also encourage you to explore the numerous professional books available on cooperative learning to provide additional ideas for your science classroom.



Taking time early in the year to develop teaming skills yields rewards that last beyond your individual classroom.

### Short-Term Inquiry Activities

For short-term inquiry activities (lasting one–three class sessions), teams can be formed randomly. Some creative ways might group students by birth month, colors of clothing, drawing names, counting off or perhaps matching “puzzle pieces” made from cut-up pictures. These teams need clearly defined roles and tasks, with opportunities for all students to practice each different role at some time during the school year. Having consistent and clearly defined roles will help students get right to the task at hand. Passing out individual role cards, posting roles on a large chart, or listing them on a team inquiry worksheet are useful ways to help remind students what their contribution to the task will be. (See Cooperative Inquiry worksheet on page 33.)

### Assigning Roles

As you design a cooperative inquiry task, review the number of key roles (or number of members) who will be assigned to a team. Be sure that the task really can be done most efficiently with this many students. Otherwise, you will teach your students that it is easier to work alone than together! A few general guidelines about cooperative roles might be:

- Start with pairs and build to three or four – especially with young children. For pairs, reader-writer or writer-checker are good roles to start with. Pairs can take turns performing both roles during the task.
- Take some time to directly teach the skills of how to successfully perform a role. What will the person in that role do (take notes, keep track of time, clean up materials, etc.) and say (“Can you repeat that?” “That was a good idea.” “We need to start cleaning up.”)?
- Monitor roles while students are working and acknowledge when you see them being demonstrated successfully.
- Encourage self- and team-assessment. This can be done using a cooperative group rubric, a class-designed rubric, or checklist that encourages observation and reflection on performance.
- Many small groups are easier to manage than fewer large groups. For most investigations, three–five students per group will be the most productive.

### Common Roles and Functions

Below are some of the most common roles you might consider using. For each role, you will see several different names for similar tasks. You may want to combine roles, depending on the task, or have students self-assign roles within their teams. Older students should eventually be able to review and break down a task, determine necessary roles and monitor team progress with little teacher intervention.

- **Task Master/Captain/Reader/Manager:** Keeps track of time, reads directions, keeps team on task, distributes information, makes sure that the team does not disturb others.
- **Checker/Gatekeeper/Coach/Tracker:** Makes sure everyone participates; makes sure everyone agrees before a decision is made; makes sure everyone has verified their information; asks questions to double check supplies, procedures and information.
- **Materials Monitor/Supplies Captain:** Listens to the task and lists materials and tools needed, gets and distributes or sets up supplies, supervises cleanup.
- **Recorder/Secretary/Writer:** Writes important information on charts or posters, makes sure all team members contribute information, asks for clarification before writing.
- **Artist/Illustrator/Graphic Designer:** Draws diagrams or illustrations, creates graphs and charts, prepares overheads and organizes visuals for group presentations.
- **Presenter/Speaker/Communicator:** Acts as main spokesperson for the team, works with the Recorder and Artist to be sure the information is clear for the presentation, checks to be sure that all information is accurate.
- **Traveler:** Acts as a messenger to move from team-to-team to get and share ideas between teams. (This can be helpful when some teams are getting bogged down or when an “extra” role is needed.)
- **Encourager/Cheerleader:** Makes sure that good ideas and full participation are appreciated, keeps the team going when they get bogged down, reminds team members to work together.

### Teams Working on Longer Projects

Student teams working on longer investigation projects need to develop a sense of identity and set common goals for success. They need to learn how to actively listen to each other and how to share ideas. Teams also need to be given time to reflect on their progress as a team and set goals for the future. Too often, students are put together to work on projects without any direct teaching of how to make the team function as a team. Taking time early in the year to develop teaming skills yields rewards that last beyond your individual classroom.

### Describing the Cooperative Inquiry

Using a planning worksheet, such as the one on the following page, to outline for students what they will be learning about, and how they will be investigating can save teachers time once teams begin to work. Depending on the investigation, both teacher and students may be filling in each of the sections:

**Cooperative Inquiry:** What is the essential question? What question is being tested? (“Why does water boil?” “How far will a ball roll?”)

**Concepts and Skills:** What skills are needed to complete the task? (observation, prediction, measuring, etc.) What science concepts are being learned? (Predator-Prey, physical properties, etc.)

**Team Roles and Responsibilities:** What are the tasks and who will do them?

**Team Materials:** What is needed to complete the task successfully? (measuring tools and technology, recording sheets, materials to test, etc.)

**Procedures for Investigating:** Are there guidelines for the inquiry task? (Do at least three trials. Verify results. Prepare a chart.)

**The Cooperative Inquiry worksheet is also a great organizer for science portfolios. Each student would attach this sheet as a cover page to the data collected, observations, conclusions and assessment information (rubric, checklist, etc.).**

?	<b>cooperative inquiry</b>	?
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<b>concepts and Skills</b>
----------------------------

<b>Team Roles and Responsibilities</b>
--

<b>Team Materials</b>
-----------------------

<b>Procedures for Investigating</b>
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## Three Principles of Cooperative Inquiry

Successful teams should understand and demonstrate evidence of the three key principles below: Assessment can (and should) be done in all three areas.

### Individual Accountability:

- Does each member complete his/her part of the task?
- Do they each work for the team's success, rather than their own individual success?
- Is each member motivated by a sense of responsibility to the team?

### Positive Interdependence:

- Do the parts come together as a whole because members have relied on each other to contribute?
- Do they listen, share information and plan together?
- Does the success of the team depend on the success and contribution of each member?
- Does the team work together to complete the task effectively?
- How does the team share limited resources and materials?

### Productivity and Learning:

- Is the final product of high quality?
- Has every member acquired the intended knowledge, skills and concepts?
- Could every member of the team explain what was learned through this project?
- Does the final product demonstrate a basic knowledge and understanding of science concepts that can be built upon later?

### Cooperative-Inquiry Rubric

Here is one sample of a cooperative-inquiry rubric.

Novice	Apprentice	Practitioner	Expert
<ul style="list-style-type: none"> <li>• The team is unable to complete the assignment as a team.</li> <li>• Some individuals do their portions, yet all do not contribute equally.</li> <li>• The final product either does not get completed or part of the team does all of the work.</li> <li>• Conceptual understanding cannot be assessed.</li> </ul>	<ul style="list-style-type: none"> <li>• The task is completed, but is lacking in detail or evidence of thinking beyond the basic knowledge and comprehension levels. For example, diagrams may be labeled, colored and displayed, but the team has not gone beyond the minimum requirements of defining terms and/or displaying information.</li> <li>• There is evidence that the team members have been able to take responsibility for their parts of the task, yet the varying quality of individual parts is evident.</li> <li>• The success of a few has led to the team's success, but not all members have contributed, learned, and/or performed equally.</li> <li>• In short, it is a good first effort with room for growth.</li> </ul>	<ul style="list-style-type: none"> <li>• The team's solution is complete and well written – all information is correct.</li> <li>• Drawings are labeled correctly and the information is organized.</li> <li>• Some connections to prior learning are evident and all members can articulate what was learned.</li> <li>• Quality of individuals is fairly consistent, contributing to a project that exceeds what one individual would do.</li> <li>• There is evidence that the team members have been able to take responsibility for their parts of the task. They have supported each other and solved problems along the way.</li> </ul>	<ul style="list-style-type: none"> <li>• The team's solution is complete, detailed and well written in that terms are accurately defined and all information is correct.</li> <li>• Organization and creative thinking are evidenced by such things as: original drawings, use of extended tools and technology and new questions raised for possible further study.</li> <li>• The overall organization of the project extends the thinking of the audience.</li> <li>• Team members did their jobs, but have redefined or extended them for a higher quality product or performance.</li> </ul>



Inquiry science is student-centered and teacher-facilitated. It is in-depth and meaningful. Inquiry is the process to discovering, investigating and understanding the ideas and concepts of science.

## The Process of Inquiry

### What is Inquiry Science?

The tasks in *Science Exemplars* are inquiry based. For many teachers this term can be confusing. Does inquiry mean hands-on? Does it mean “doing” science activities? Or does it mean more than just those things? Yes, it does.

**Inquiry science means that students are actively involved in doing hands-on science.** By actively involved we mean that they are working collaboratively with others, posing questions, designing and carrying out investigations, solving problems, and reflecting on results and procedures. Inquiry science is hands-on, but it is also minds-on. Learning in an inquiry science classroom is seen as an active process in which students construct views of how the world works. During this process ideas and understandings are changed, modified and extended based upon the experiences the student has.

Inquiry science is student-centered and teacher-facilitated. It is in-depth and meaningful. Inquiry is the process to discovering, investigating and understanding the ideas and concepts of science.

### The Process of Inquiry

Inquiry is a process. Many of the skills you will read about in this section will be familiar to you from your own school experiences. All of us have had to fill out “lab reports” at one time or another during middle and/or high school. For many of us, science was all about the lab reports and very little to do with the actual process of doing science. Inquiry science is much more than a lab report; it is a way of thinking, a way of learning and a way of exploring and investigating the world around us. The lab report can be a part of this, but it is not the sole purpose of inquiry.

Inquiry is not a linear process. It is cyclical in nature. As students explore, observe, question and investigate, new questions are formed, new observations are made and new investigations are begun. Through this process students’ understanding deepens and misconceptions are uncovered and examined.

One misconception that teachers often have is that inquiry science comes naturally to children. While this is partially true: children are natural inquirers, they still need to be taught the specific skills of inquiry so that they can begin to think and act as scientists do. Yet at the same time we do not want to dampen their natural curiosity and wonder by making science overly “skill based.” We also want to ensure that our students are learning the content outlined in our curriculums. In an inquiry science classroom, we can find a way to balance all these.

### **Preassessment**

The process of inquiry should always begin with finding out what students already know. This **preassessment** is critical so that teachers can learn what students already know, what questions they have and what misconceptions they may hold. These will then help guide your unit of study. It is not necessary to teach an idea or concept if students already have an understanding of it. The questions that students have will help you plan what investigations are most worthwhile for students to conduct. You may also find that a number of students hold the same misconception, indicating that more time should be spent on those ideas. A more detailed explanation and some suggestions for preassessment are included in another section.

### **Exploration**

Another critical aspect of inquiry is giving students time for **exploration**. When beginning a unit of study, students need ample time to explore the new materials and the ideas that these materials represent. During this exploration, many observations are made and many questions are posed. You will also find students beginning to conduct investigations as questions form in their minds. Their natural curiosity takes over and they want to find out what, and why and how. This exploration also allows students to become familiar with the materials and what they do. It is difficult to begin a unit with planned investigations if students are unfamiliar with materials and haven't had the opportunity to "play" with them. This "messaging about" with materials can be hard for teachers. It means giving up some control and having a bit of chaos in your classroom. Start small, perhaps by only putting out some of the materials first and then slowly adding to them. Ask students to help you come up with some guidelines for these explorations and discuss safety and respect with them as well.

### **Observation**

**Observation** is an important inquiry skill. These explorations can give you the opportunity to teach students how to be careful observers, how to use their senses to observe and how to record these observations. Again, balance is the key. Let students explore and observe without any other expectations except sharing informally with others through scientist's meetings or class/group discussions what they have explored and observed. Then, when appropriate, you can discuss observation and its role in science and why it's important to observe things carefully and record what was observed so that others can understand.



The understanding and meaning that comes from students seeking answers to their own questions is the most powerful form of learning possible.

### Scientist Meeting

The idea of a **scientist meeting** is an important piece of the process. It is an informal or formal gathering of students to share, discuss, debate, demonstrate, analyze and communicate what they are learning and to hear what others are learning. Scientist's meetings should happen on a regular basis and be an integral part of any science unit whether it's after an exploration, an observation, an investigation, a project or research. It can also take many shapes. As the teacher you can decide how to structure it depending upon your students, your topic and your teaching style.

### Student Questions

From this exploration/observation as well as later investigations comes many questions. This is the heart of inquiry: **student questions**. Students have so many questions and our teaching should nurture these questions and allow students opportunities to find the answers to their questions. This can often be difficult because as teachers we have time constraints and curriculum to cover. But questioning is a skill that is used throughout our curriculum whether it's science, math, social studies, writing or reading. Therefore, having students raise questions and honoring those questions is never a waste of learning time. The understanding and meaning that comes from students seeking answers to their own questions is the most powerful form of learning possible. You may find that students raise questions whose answers fit nicely with your curriculum objectives. These questions that students raise can be embedded into the investigations you plan and/or be a part of independent research and investigations that students do on their own.

The questions that students raise can also be used for instruction. As students pose questions, record these somewhere for students to refer back to and to give answers to as they discover them. This is also a time when you can teach students how to raise testable questions. Not all questions that students raise are testable in the classroom. It is important for them to learn the types of questions and questioning words (who, what, where, when, how, why) and how they can answer each type of question.

### Question might be classified as:

- **Classroom** (meaning we can test it here in the classroom or at home with the materials we have available),
- **Laboratory** (we could test these if we had the necessary equipment and materials, but maybe we could ask a scientist or even a high school science class to find out the answer for us), and
- **Research** (these questions can usually only be answered by looking it up in a book, an encyclopedia, or on the internet). Most if not all questions can be answered, you may not have time to find all the answers, but you will have given your students methods and tools for finding the answers.

### Guided Inquiry

Another integral part of the inquiry process is **guided inquiry**. This instructional piece is critical to student learning and understanding. Guided inquiry can take many forms. It can be an opportunity to teach new skills, new concepts and new forms of communication. It can be an opportunity for students to practice skills, concepts and communication. And it can be an opportunity to ensure that your curriculum objectives are being taught as well as honoring student questions and giving them time to find the answers. Guided inquiry is the core of any science unit.



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Guided inquiry is the core of any science unit.

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### The skills of inquiry include:

- Observing
- Questioning
- Predicting/hypothesizing
- Planning and conducting investigations
- Controlling variables
- Data collection, representation and analysis
- Drawing conclusions

All of these are skills that need to be taught. Students also need opportunities to practice these skills through meaningful investigations of questions and concepts and time to share their learning with others.

Guided inquiry can be conducted in a variety of ways. Here are just a few suggestions:

- Using questions posed by students, or questions from your curriculum or science program, have the whole class plan together ways to investigate the question. Discuss the components/skills of inquiry that need to be in place for investigation and then have students break into smaller groups to investigate. Come back as a whole group to share results and draw conclusions together.
- After exploring materials, have students share questions they have that they would like to investigate (remember to think about developing testable questions). As a whole group assist each group in planning their investigation. Once the smaller groups have investigated they can then share their results and conclusions with the whole class.
- As students begin to plan more of their own investigations, give them opportunities to share their plans before beginning, in order to receive feedback from you and/or the class. You can also have students use planning sheets to ensure that they have all the components in place.

- Select a skill that students seem to be struggling with, such as controlling variables. Find tasks/investigations that emphasize this skill and use these to teach the skill to students. After investigating, discuss how well the investigation went and how their results reflect their understanding of this skill.
- Choose investigations that emphasize specific concepts in your unit. Use these investigations to ensure that students are developing a deep understanding of the ideas. These investigations should also allow students to continue practicing the skills of inquiry.
- Drawing conclusions based upon data collected can be practiced not only through science investigations, but through math, reading and social studies. Provide many opportunities for students to collect different types of data and draw conclusions.
- Find tasks/investigations that allow you to teach a variety of ways to collect data. Discuss different representations (charts, tables, diagrams, graphs, etc.) with students. Ask students to think about representations that work best for different kinds of data. Practice these as a whole group, modeling different types, and then have students use these in their own investigations. This can also tie in with mathematical representation.
- Use samples of students' work from investigations to look at and discuss as a whole group. This is also an effective way to reinforce not only the skills being practiced but conceptual learning as well.

### Student Directed Inquiry

Once students have had many guided inquiry experiences, they can begin to design and conduct their own investigations to answer their own questions. **Student directed inquiry** should be a part of every science unit. A rule of thumb for me is to give students this opportunity at least once during a unit of study. It usually is at the end of a unit, when students are ready and have a solid grasp of skills and concepts. I often use student directed inquiry as a culminating task and have students present their investigations more formally to the class. The major difference between guided inquiry and student directed inquiry is that students have the responsibility for all aspects of the investigation.

You may ask yourself, what about lectures and demonstrations? What if I have to use a program that my school purchased that isn't inquiry based? These are important questions. The key again is balance. I often use our scientist's meeting time to "lecture" or do a demonstration. I usually wait until students have first explored and investigated the topic and materials for themselves and then introduce appropriate vocabulary or more complex ideas. You will find these "teachable moments" when students are ready for them.

Many schools already have wonderful programs in place for their science curriculum. The most important thing to remember is that no program can be truly inquiry based. It will always be missing the student-directed inquiry component. And many programs tend to be more cookbook in style, where students follow prescribed investigations to get certain results. If you are using such a program, there is much you can do to make it more inquiry based. The simplest thing to do is to allow students to make some of the decisions. For example, if an activity has a great question to investigate and all the steps are given for students to follow, give them only the question and have them plan the steps of the investigation for themselves. Think about some of the suggestions for guided inquiry mentioned above. Use these in conjunction with your program.

Above all, remember that inquiry-based science teaches our students to think. It teaches them that their questions and their ideas are important. After all, this is exactly what real scientists do.

## Guiding Students to Design and Conduct Investigations

There are numerous investigations that teach and assess. Here are some sample questions to ask students as they work through their investigations.

*(Students can also use these questions and examples as a guide to plan, design and carry out a fair test investigation. The teacher and/or peers can also use this guide to review each other's work and suggest ways to improve.)*

### Testable Questions

#### Can you answer this question only by experimenting?

*(A Testable Question: Does a banana peel decay faster than an apple peel?)*

*(Not Testable: Why is the sky blue?)*

- What are you curious about?
- What do you want to find out?
- What do you already know about this?
- What is your testable question:

### Hypotheses and Making Predictions

#### What do you think will happen?

- What is your idea?
- What do you already know about this that makes you think so?
- Can you state your prediction to show what you think will happen or change? (When I do this \_\_\_\_\_, I think that \_\_\_\_\_ will be the result.)

### Procedures

#### How will you test this? What materials will you need? What are the variables?

- What is your idea for an exploration? Write out each step so someone else could do it from your directions.
- What will you need? Try to be specific. Do not forget your tools for measuring.
- How will you be sure it is a fair test?
- What are the variables that will stay the same? What might change? What will you observe?

## Collecting and Organizing Data

### What actually happened?

- What did you see? Hear? Smell? Can you add details to your observations?
- What actually happened?
- What did you measure?
- What units of measure (minutes, inches, etc.) will you label in your data?
- Will your data be in a chart? Graph? How will you label the important headings?
- Are there important dates or times included with your data? How often did you record data?
- Can you make a drawing or drawings to clearly show and explain your results? What will be labeled?

## Drawing Conclusions

### What did you find out? What have you learned?

- Remember your prediction? Did you get the results you expected? Can you use examples from your data to support your results? Can you explain why this happened or extend your thinking about this now?
- Did anything go wrong along the way? Did you have to change your experiment along the way?
- Did anything surprise you?
- Do you have any new ideas or new questions?



You can use *Exemplars* web site to search for science tasks that align with your states' standards. Visit [www.exemplars.com/resources/alignments/index.html](http://www.exemplars.com/resources/alignments/index.html)

### Implementing Exemplars in the Classroom

When planning units we recommend using the backwards-design process as a means to assist the teacher with ensuring that units of study are aligned with local or national science standards. This process will also help the teacher understand the necessary scaffolding of science concepts and skills.

The process is as follows:

1. **Select Standards.** These are the standards that you will assess during the course of the unit. It is important to choose a balance of content and skill standards for the unit. It is also important to limit the number of standards you select to three-five total standards for a typical four week unit of study. Select standards that embrace important ideas and skills for the students at your grade level and for the topic you are teaching. If you have a standards-based curriculum use the objectives listed for your grade level.
2. **Build Essential Questions.** Essential questions address the big ideas, concepts, skills and themes of the unit. These questions shape the unit; focus and intrigue students on the issues or ideas at hand; are open ended and no one obvious right answer. These questions should be important and relevant to the students and allow for several standards if not all of the standards selected to be addressed. These questions should engage a wide range of knowledge, skills and resources and pose opportunities for culminating tasks or projects where students can demonstrate how they have grappled with the question.
3. **Design Culminating Tasks.** This final task or project should encompass and help assess each of the standards selected and should enable students to answer or demonstrate understanding of the answer to the essential question. The task should be multi-faceted, allow for multiple points of entry and be performance based. It should allow students to apply their skills and knowledge learned in meaningful and in-depth ways. *Exemplars* tasks that match your standards can be powerful culminating tasks.
4. **Develop Learning and Teaching Activities.** These activities and tasks should address the standards selected and guide student learning towards what they need to know and be able to do in order to achieve the standards. Select relevant *Exemplars* tasks that assist with teaching appropriate content, skills and/or strategies.

There are four major types of learning and teaching activities:

- **Introductory Activities** are used to preassess students' prior knowledge and to generate student interest in the unit of study. These activities tend to be interactive, exploratory and stimulating.
- **Instructional Activities** are used to provide opportunities for students to learn and demonstrate specific skills, knowledge and habits of mind. These are usually sequenced and scaffolded, tied to specific standards and objectives, interesting, engaging, in-depth, active and interactive and can also be used for formative assessment during the course of the unit to measure student progress and inform instruction.
- **Assessment Activities and the Culminating Activity** are used to assess both students' progress towards attainment of the standards and for summative purposes at the end of the unit. These activities usually involve some type of product or performance by the student.

\* *All activities selected, both Exemplars tasks and other activities, should be based upon their utility in helping students learn and demonstrate the knowledge and skills identified in the standards selected. Activities should accommodate a range of learning styles and multiple intelligences and be developmentally appropriate. Activities should also have a purposeful and logical progression for both knowledge and skill attainment.*

5. **Create Student Products and Performances.** Consider what criteria you will use to assess student learning both before, during and after the unit. Use the *Exemplars Science* rubric to assess relevant knowledge, skills or problem-solving strategies as students work on and complete *Exemplars* science tasks. Collect and use examples of student work that demonstrates the criteria selected and the different levels of performance. Allow opportunities for students to self-assess using the rubric.

## An Example of the Backwards Design Process

### Standards:

#### National Science Standards Grades K–4:

##### Develop abilities necessary to do scientific inquiry

- Ask questions about objects, organisms, events in the environment
- Plan and conduct simple investigations
- Employ simple equipment and tools to gather data and extend the senses
- Use data to construct a reasonable explanation
- Communicate investigations and explanations

##### Develop an understanding of position and motion of objects

- The position of an object can be described by locating it relative to another object or the background.
- An object's motion can be described by tracing and measuring its position over time.
- The position and motion of objects can be changed by a force (push or pull). The size of the change is related to the strength of the push or pull.

**Essential Question:** How do objects move? What forces affect an object's motion?

##### **Culminating Task:**

*Can You Design a Marble Mover?* (Best of Science Exemplars CD-Rom, grades 3–5)  
In this task students are asked to consider inertia, gravity and friction to design a marble mover that will move a marble a certain distance. In order to do this task students will have had to have numerous opportunities to observe motion and investigate these major forces that affect motion. Students will also have needed to practice the skills of inquiry: questioning, predicting, designing and conducting an investigation, fair testing, collecting and recording data, analysis of that data and drawing conclusions. Students will then present their marble mover to the class. Students will use the *Science Exemplars* Rubric to self-assess their work.

## Learning and Teaching Activities\*

*\*This section includes both K–2 and 3–5 tasks. If you are teaching upper elementary students you can easily use the K–2 tasks by giving students more choices in the materials being used, the procedures being followed, or the amount of support you give for recording their investigations. Likewise, for primary grade teachers, you can give students more support with the 3–5 tasks.*

- **Introductory Activities:** These might include a K–W–L chart, exploration and observation of things that move around the classroom as well as other motion materials that are available, The task *What Can Motion Be?* (*The Best of Science Exemplars* CD, grades K–2) and the task *Observing Motion: What are some different ways that things can move?* (*Science Exemplars* Volume, 5 Spring 2001, grades K–2). These activities help students to begin to think about and explore the different ways that things move. It is also a time when students begin to form questions about motion.
- **Instructional Activities:** These will include more focused activities around the skills and concepts. It is important to build a foundation of knowledge so that students can understand first that objects can move in different ways, then progress to understanding that there are forces that can change an object’s motion and it’s position. Each of the tasks below provides these guided inquiry experiences. The tasks that are listed are scaffolded and help students to answer the essential questions.
- **Assessment Activities:**  
During the course of the unit select two or three of the above tasks to use for formative assessment purposes. These will help inform instruction by providing information about how students are progressing towards the standards and about their understanding of the skills and concepts. This can also be an opportunity to teach students how to self-assess.

## Exemplars

Task	Concepts and Skills
<i>How Do Things Move? (Exemplars Science, grades K–5)</i>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push and pull)</li> <li>• Questioning</li> <li>• Predicting</li> <li>• Recording data</li> <li>• Drawing conclusions</li> <li>• Communicating</li> </ul>
<i>What Can I Learn From Toys that Move? (Exemplars Science, grades K–5)</i>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push and pull)</li> <li>• Predicting</li> <li>• Conducting simple investigations</li> <li>• Recording data</li> <li>• Drawing conclusions</li> <li>• Communicating</li> </ul>
<i>Will it Roll or Slide (The Best of Science Exemplars CD-Rom, grades K–2)</i>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push, pull, gravity, friction)</li> <li>• Predicting</li> <li>• Conducting simple investigations</li> <li>• Controlling variables</li> <li>• Recording data</li> <li>• Drawing conclusions</li> <li>• Communicating</li> </ul>
<i>Wind up Toys, Part 1 and 2 (Exemplars Science, grades K–5)</i>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push and pull)</li> <li>• Planning and conducting simple investigations</li> <li>• Controlling variables</li> <li>• Recording data</li> <li>• Drawing conclusions</li> <li>• Communicating</li> </ul>
<i>How Do Ramps Work? (The Best of Science Exemplars CD-Rom, grades K–2)</i>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push, pull, gravity, friction, inertia)</li> <li>• Predicting</li> <li>• Conducting simple investigations</li> <li>• Controlling variables</li> <li>• Recording data</li> <li>• Drawing conclusions</li> <li>• Communicating</li> </ul>

## Exemplars

<p><i>Which Ball Goes the Farthest? (The Best of Science Exemplars CD-Rom, grades K–2)</i></p>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push, pull, gravity, friction, inertia)</li> <li>• Investigate the idea of mass and motion</li> <li>• Predicting</li> <li>• Planning and conducting simple investigations</li> <li>• Controlling variables</li> <li>• Recording data</li> <li>• Drawing conclusions</li> <li>• Communicating</li> </ul>
<p><i>How Does Push Affect Distance? (Exemplars Science, grades K–5)</i></p>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push, pull, gravity, and inertia)</li> <li>• Predicting</li> <li>• Planning and conducting simple investigations</li> <li>• Controlling Variables</li> <li>• Recording data</li> <li>• Drawing Conclusions</li> <li>• Communicating</li> </ul>
<p><i>Rolling and Sliding: How Does Surface Affect Moving Objects? (Exemplars Science, grades K–5)</i></p>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push, pull, and friction)</li> <li>• Predicting</li> <li>• Planning and conducting simple investigations</li> <li>• Controlling Variables</li> <li>• Recording data</li> <li>• Drawing Conclusions</li> <li>• Communicating</li> </ul>
<p><i>How Far Can you Make a Toy Car Go? (The Best of Science Exemplars CD-Rom, grades 3–5)</i></p>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push, pull, gravity, inertia and friction)</li> <li>• Investigating the idea of mass and motion</li> <li>• Predicting</li> <li>• Planning and conducting simple investigations</li> <li>• Controlling Variables</li> <li>• Recording data</li> <li>• Drawing Conclusions</li> <li>• Communicating</li> </ul>

<p><i>How Does a Sail Affect the Motion of a Vehicle? (The Best of Science Exemplars CD-Rom, grades 3–5)</i></p>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push, pull, inertia and friction)</li> <li>• Predicting</li> <li>• Planning and conducting simple investigations</li> <li>• Controlling Variables</li> <li>• Recording data</li> <li>• Drawing Conclusions</li> <li>• Communicating</li> </ul>
<p><i>Weights Affect on Pendulum Motion (The Best of Science Exemplars CD-Rom, grades 3–5)</i></p>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push, pull, gravity, inertia and friction)</li> <li>• Investigating the idea of weight and motion</li> <li>• Predicting</li> <li>• Planning and conducting simple investigations</li> <li>• Controlling variables</li> <li>• Recording data</li> <li>• Drawing conclusions</li> <li>• Communicating</li> </ul>
<p><i>Questions about Inertia (The Best of Science Exemplars CD-Rom, grades 3–5)</i></p>	<ul style="list-style-type: none"> <li>• Observing objects in motion</li> <li>• Applying forces to objects (push, pull, gravity, inertia and friction)</li> <li>• Investigating the idea of mass and motion</li> <li>• Questioning</li> <li>• Predicting</li> <li>• Planning and conducting simple investigations</li> <li>• Controlling variables</li> <li>• Recording data</li> <li>• Drawing conclusions</li> <li>• Communicating</li> </ul>

After completing these tasks, students can then pose their own question about motion and forces to plan and conduct an investigation for.

You may have other favorite investigations to include. Think about where they should go in terms of scaffolding: what concepts do they help the student understand? What skills do they teach, practice or reinforce?

### Vocabulary

**Friction:** Resistance to motion of surfaces that touch.

**Inertia:** Newton's 1st law of motion that states an object at rest tends to stay at rest and an object in motion tends to stay in motion unless they are acted upon by an unbalanced force.

**Force:** A push or a pull.

**Gravity:** A force that pulls things down towards the earth.

**Mass:** The amount of matter or stuff that something is made of

### **Products and Performances:**

Student products and performances will include all work done from these investigations whether it is a recording sheet, a journal entry, a project or research.

The rubrics on the following pages (52–55) can be used by individual teachers or teams of teachers assessing student work. In the left-hand column the teacher records the evidence they see in the student work that justifies placing the work at that particular level. In the right-hand column the teacher would record the action(s) that can be taken to help the student move to the next performance level.

### Exemplars Science Rubric Scientific Tools and Technologies

Evidence	Action

Novice	Apprentice	Practitioner	Expert
<ul style="list-style-type: none"> <li>• Did not use appropriate scientific tools or technologies (e.g., rulers, pH paper, hand lens, computer, reference materials, etc.) to gather data (via measuring and observing).</li> </ul>	<ul style="list-style-type: none"> <li>• Attempted to use appropriate tools and technologies (e.g., rulers, pH paper, hand lens, computer, reference materials, etc.) to gather data (via measuring and observing) but some information was inaccurate or incomplete.</li> </ul>	<ul style="list-style-type: none"> <li>• Effectively used some appropriate tools and technologies (e.g., rulers, pH paper, hand lens, computer, reference materials, etc.) to gather and analyze data, with only minor errors.</li> </ul>	<ul style="list-style-type: none"> <li>• Accurately and proficiently used all appropriate tools and technologies (e.g., rulers, pH paper, hand lens, computer, reference materials, etc.) to gather and analyze data.</li> </ul>

## Exemplars Science Rubric Scientific Procedures and Reasoning Strategies

Evidence	Action

Novice	Apprentice	Practitioner	Expert
<ul style="list-style-type: none"> <li>• No evidence of a strategy or procedure, or used a strategy that did not bring about successful completion of task/investigation.</li> <li>• No evidence of scientific reasoning used.</li> <li>• There were so many errors in the process of investigation</li> </ul>	<ul style="list-style-type: none"> <li>• Used a strategy that was somewhat useful, leading to partial completion of task/investigation.</li> <li>• Some evidence of scientific reasoning used.</li> <li>• Attempted but could not completely carry out testing a question, recording all data and stating conclusions.</li> </ul>	<ul style="list-style-type: none"> <li>• Used a strategy that led to completion of the investigation/task.</li> <li>• Recorded all data.</li> <li>• Used effective scientific reasoning.</li> <li>• Framed or used testable questions, conducted experiment, and supported results.</li> </ul>	<ul style="list-style-type: none"> <li>• Used a sophisticated strategy and revised strategy where appropriate to complete the task.</li> <li>• Employed refined and complex reasoning and demonstrated understanding of cause and effect.</li> <li>• Applied scientific method accurately: (framed testable questions, designed experiment, gathered and, gathered and recorded data, analyzed data, and verified results).</li> </ul>

**Exemplars Science Rubric  
Scientific Communications/Using Data**

Evidence	Action

Novice	Apprentice	Practitioner	Expert
<ul style="list-style-type: none"> <li>• No explanation, or the explanation could not be understood, or was unrelated to the task/investigation.</li> <li>• Did not use, or inappropriately used scientific representations and notations (e.g. symbols, diagrams, graphs, tables, etc).</li> <li>• No conclusion stated, or no data recorded.</li> </ul>	<ul style="list-style-type: none"> <li>• An incomplete explanation or explanation not clearly presented (e.g. out of sequence, missing step).</li> <li>• Attempted to use appropriate scientific representations and notations, but were incomplete (e.g. no labels on chart).</li> <li>• Conclusions not supported or were only partly supported by data.</li> </ul>	<ul style="list-style-type: none"> <li>• A clear explanation was presented.</li> <li>• Effectively used scientific representations and notations to organize and display information.</li> <li>• Appropriately used data to support conclusions.</li> </ul>	<ul style="list-style-type: none"> <li>• Provided clear, effective explanations detailing how the task was carried out. The reader does not have to infer how and why decisions were made.</li> <li>• Precisely and appropriately used multiple scientific representations and notations to organize and display information.</li> <li>• Interpretation of data supported conclusions, and raised new questions or was applied to new contexts.</li> <li>• Disagreements with data</li> </ul>

## Exemplars Science Rubric Scientific Concepts and Content

Evidence	Action

Novice	Apprentice	Practitioner	Expert
<ul style="list-style-type: none"> <li>• No use, or mostly inappropriate use, of scientific terminology.</li> <li>• No mention or inappropriate references to relevant scientific concepts, principles, or theories (big ideas).</li> <li>• No evidence of understanding observable characteristics and properties of objects, organisms, and/or materials used.</li> </ul>	<ul style="list-style-type: none"> <li>• Used some relevant scientific terminology.</li> <li>• Minimal references to relevant scientific concepts, principles, or theories (big ideas).</li> <li>• Some evidence of understanding observable characteristics and properties of objects, organisms, and/or materials used.</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriately used scientific terminology.</li> <li>• Provided evidence of understanding of relevant scientific concepts, principles or theories (big ideas).</li> <li>• Evidence of understanding observable characteristics and properties of objects, organisms and/or materials used.</li> </ul>	<ul style="list-style-type: none"> <li>• Precisely and appropriately used scientific terminology.</li> <li>• Provided evidence of in depth, sophisticated understanding of relevant scientific concepts, principles or theories (big ideas).</li> <li>• Revised prior misconceptions when appropriate.</li> <li>• Observable characteristics and properties of objects, organisms, and/or materials used went beyond the task/investigation to make other connections or extend thinking.</li> </ul>



## SALTA 3<sup>rd</sup> Grade Content Integration Scope & Sequence

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
<b>Unit Theme</b>	Living and Learning	Smart Solutions	People and Nature	One of a Kind	Cultures	Freedom
<b>Unit Question</b>	Which skills help us make our way in the world?	What are smart ways that problems are solved?	How are people and nature connected?	What does it mean to be unique?	What happens when two ways of life come together?	What does freedom mean?
<b>Science Core</b>	<b>Keyboarding</b>	<b>Standard 2:</b> Students will understand that organisms depend on living and nonliving things within their environment.	<b>Standard 5:</b> Students will understand that the sun is the main source of heat and light for things living on Earth. They will also understand that the motion of rubbing objects together may produce heat.	<b>Standard 1:</b> Students will understand that the shape of Earth and the moon are spherical and that Earth rotates on its axis to produce the appearance of the sun and moon moving through the sky.	<b>Standard 4:</b> Students will understand that objects near Earth are pulled toward Earth by gravity.	<b>Standard 3:</b> Students will understand the relationship between the force applied to an object and resulting motion of the object.
<b>Social Studies Core</b>		<b>Standard 1:</b> Students will understand how geography influences community location and development. <b>Obj. 1:</b> Determine the relationships between human settlement and geography.	<b>Standard 1:</b> Students will understand how geography influences community location and development. <b>Obj. 2:</b> Describe how various communities have adapted to existing environments and how other communities have modified the environment. <b>Obj. 3:</b> Analyze ways cultures use, maintain, and preserve the physical environment.	<b>Standard 2:</b> Students will understand cultural factors that shape a community.	<b>Standard 3:</b> Students will understand the principles of civic responsibility in classroom, community, and country. <b>Obj. 1</b> (pledge, flag) (voting, jury, taxpaying) Students will understand the principles of civic responsibility in the classroom, community and country.	<b>Standard 3:</b> Students will understand the principles of civic responsibility in classroom, community, and country. <b>Obj. 2:</b> Identify ways community needs are met by government. <b>Obj. 3:</b> Apply principles of civic responsibility.
<b>Science Exemplars</b>	241, 265	284-287, 741-742	217, 469, 470	826	247	211,229, 248, 300, 336, 462, 743

## SALTA 3<sup>rd</sup> Grade Content Integration

Unit 2: Smart Solutions		
Reading Street Big Question: What are smart ways that problems are solved?		
Content	Social Studies	Science
Essential Question	Why do people live where they do?	How do we know if something is living?
Content Standards	<p><b>Standard 1: Students will understand how geography influences community location and development.</b></p> <p><b>Objective 1 Determine the relationships between human settlement and geography.</b></p> <ol style="list-style-type: none"> <li>a. Identify the geographic features common to areas where human settlements exist.</li> <li>b. Use map features to make logical inferences and describe relationships between human settlement and physical geography (e.g. population density in relation to latitude, cities' proximity to water, utilization of natural resources).</li> <li>c. Compare the shapes and purposes of natural and human-made boundaries of cities, counties and states.</li> </ol>	<p><b>Standard 2: Students will understand that organisms depend on living and nonliving things within their environment.</b></p> <p><b>Objective 1: Classify living and nonliving things in an environment.</b></p> <ol style="list-style-type: none"> <li>a. Identify characteristics of living things (i.e., growth, movement, reproduction).</li> <li>b. Identify characteristics of nonliving things.</li> <li>c. Classify living and nonliving things in an environment.</li> </ol> <p><b>Objective 2 Describe the interactions between living and nonliving things in a small environment.</b></p> <ol style="list-style-type: none"> <li>a. Identify living and nonliving things in a small environment (e.g., terrarium, aquarium, flowerbed) composed of living and nonliving things.</li> <li>b. Predict the effects of changes in the environment (e.g., temperature, light, moisture) on a living organism.</li> <li>c. Observe and record the effect of changes (e.g., temperature, amount of water, light) upon the living organisms and nonliving things in a small-scale environment.</li> <li>d. Compare a small-scale environment to a larger environment (e.g., aquarium to a pond, terrarium to a forest).</li> <li>e. Pose a question about the interaction between living and nonliving things in the environment that could be investigated by observation.</li> </ol>
Essential Vocabulary	latitude, longitude, compass rose, north, south, east, west, continents, ocean, key, equator	environment, interaction, living, nonliving, organism, survive, observe, terrarium, aquarium, temperature, moisture, small-scale
Suggested Unit Resources	<p>UEN Links:</p> <p>Lesson Ideas: <a href="http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml">http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml</a></p> <p>Websites: <a href="http://www.uen.org/core/socialstudies/third/web.shtml">http://www.uen.org/core/socialstudies/third/web.shtml</a></p> <p>Lessons and Standards: <a href="http://www.uen.org/core/core.do?courseNum=6030">http://www.uen.org/core/core.do?courseNum=6030</a></p>	<p>State Science OER Textbook: <a href="http://www.schools.utah.gov/CURR/science/OER.aspx">http://www.schools.utah.gov/CURR/science/OER.aspx</a></p> <p>UEN—Teacher Resource Book: <a href="http://www.uen.org/core/science/sciber/TRB3/IL.shtml">http://www.uen.org/core/science/sciber/TRB3/IL.shtml</a></p> <p>USOE supports: <a href="http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx">http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx</a></p>

## SALTA 3<sup>rd</sup> Grade Content Integration

Explicit Ties to Reading Street	N/A	Week 1: Main Selection: Penguin Chick Week 5: Amazing Bird Nests
Reading Street Online Readers	The Places Where We Live (L780) Communities: Alike and Different (L700) Land and Water: How Geography Affects Our Community (L860) Why We Live Where We Live (L860)	All About Animals (L320) Animal Eggs (L680) Animal Groups (L510) A Price of Knowledge; the Interaction of Animals and Scientist (L1210) Build an Aquarium (L910) Polar Life (L800)
Science Exemplars	<p><b>River: A Living System. Part 1 Observing Invertebrates (284)</b> <i>Vocabulary: organism, metamorphosis</i></p> <p><b>River: A Living System. Part 2: What is a Watershed? (285)</b> <i>Vocabulary: watershed, diagram, topographical map, relief map, erosion, sediment</i></p> <p><b>River: A Living System. Part 3: Observation Logs (286)</b> <i>Vocabulary: classify, compare, impact, cause/effect,</i></p> <p><b>River: A Living System. Part 4: Interdependence (287)</b> <i>Vocabulary: food web, benthic macroinvertebrate, system, interdependence, square meter, reproduction rates,</i></p> <p><b>Investigations With Mealworms: What Do They Prefer? (741-742)</b> <i>Vocabulary: environment, hypothesis, living vs nonliving, variable, adaptations, conclusion, control, fair test,</i></p>	

## SALTA 3<sup>rd</sup> Grade Content Integration

Unit 3: People and Nature		
Reading Street Big Question: How are people and nature connected?		
Content	Social Studies	Science
Essential Question	How do people adapt to their physical environment?	What is the earth’s main source of heat and light? How can motion create heat?
Content Standards	<p><b>Standard 1: Students will understand how geography influences community location and development.</b></p> <p><b>Objective 2: Describe how various communities have adapted to existing environments and how other communities have modified the environment.</b></p> <ol style="list-style-type: none"> <li>a. Describe the major world ecosystems (i.e. desert, plain, tropic, tundra, grassland, mountain, forest, wetland).</li> <li>b. Identify important natural resources of world ecosystems.</li> <li>c. Describe how communities have modified the environment to accommodate their needs (e.g. logging, storing water, building transportation systems).</li> <li>d. Investigate ways different communities have adapted into an ecosystem.</li> </ol> <p><b>Objective 3: Analyze ways cultures use, maintain, and preserve the physical environment.</b></p> <ol style="list-style-type: none"> <li>a. Identify ways people use the physical environment (e.g. agriculture, recreation, energy, industry).</li> <li>b. Compare changes in the availability and use of natural resources over time.</li> <li>c. Describe ways to conserve and protect natural resources (e.g. reduce, reuse, recycle).</li> <li>d. Compare perspectives of various communities toward the natural environment.</li> <li>e. Make inferences about the positive and negative impacts of human-caused change to the physical environment.</li> </ol>	<p><b>Standard 5: Students will understand that the sun is the main source of heat and light for things living on Earth. They will also understand that the motion of rubbing objects together may produce heat.</b></p> <p><b>Objective 1: Provide evidence showing that the sun is the source of heat and light for Earth.</b></p> <ol style="list-style-type: none"> <li>a. Compare temperatures in sunny and shady places.</li> <li>b. Observe and report how sunlight affects plant growth.</li> <li>c. Provide examples of how sunlight affects people and animals by providing heat and light.</li> <li>d. Identify and discuss as a class some misconceptions about heat sources (e.g., clothes do not produce heat, ice cubes do not give off cold).</li> </ol> <p><b>Objective 2: Demonstrate that mechanical and electrical machines produce heat and sometimes light.</b></p> <ol style="list-style-type: none"> <li>a. Identify and classify mechanical and electrical sources of heat.</li> <li>b. List examples of mechanical or electrical devices that produce light.</li> <li>c. Predict, measure, and graph the temperature changes produced by a variety of mechanical machines and electrical devices while they are operating.</li> </ol> <p><b>Objective 3: Demonstrate that heat may be produced when objects are rubbed against one another.</b></p> <ol style="list-style-type: none"> <li>a. Identify several examples of how rubbing one object against another produces heat.</li> <li>b. Compare relative differences in the amount of heat given off or force required to move an object over lubricated/non-lubricated surfaces and smooth/rough surfaces (e.g., waterslide with and without water, hands rubbing together with and without lotion).</li> </ol>
Essential Vocabulary	desert, plain, tropic, tundra, grassland, mountain, forest, wetland, natural resources, reduce, reuse, recycle, recover, economic development, community development, recreation, natural resource extraction, agriculture	mechanical, electrical, temperature, degrees, lubricated, misconception, heat source, machine

## SALTA 3<sup>rd</sup> Grade Content Integration

Suggested Unit Resources	<p>UEN Links: Lesson Ideas: <a href="http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml">http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml</a> Websites: <a href="http://www.uen.org/core/socialstudies/third/web.shtml">http://www.uen.org/core/socialstudies/third/web.shtml</a> Lessons and Standards: <a href="http://www.uen.org/core/core.do?courseNum=6030">http://www.uen.org/core/core.do?courseNum=6030</a></p>	<p>State Science OER Textbook: <a href="http://www.schools.utah.gov/CURR/science/OER.aspx">http://www.schools.utah.gov/CURR/science/OER.aspx</a> Teacher Resource Book: <a href="http://www.uen.org/core/science/sciber/TRB3/V.shtml">http://www.uen.org/core/science/sciber/TRB3/V.shtml</a> USOE supports: <a href="http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx">http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx</a></p>
Explicit Ties to Reading Street	N/A	N/A
Reading Street Online Readers	<p>The Places Where We Live (L780) Communities: Alike and Different (L700) Land and Water: How Geography Affects Our Community (L860) Why We Live Where We Live (L860)</p>	<p>Energy from Heat and Light (L830) Energy from Heat (L710) Heat and Light (L150) Thermal and Light Energy (L770) Exploring Earth and Space (L570) The Sun and the Seasons (L700) Heat and Light (L150) Learning About Energy (L150) The Sun (L480) Sun, Earth and Moon (L860)</p>
Science Exemplars	<p><b>Exploring Properties of Light: What Do You Know and What Can You Find Out About Light? (469)</b> <i>Vocabulary: none *used as a preassessment to a unit on light</i></p> <p><b>Does Light Bend? (217)</b> <i>Vocabulary: light, energy, intensity</i></p> <p><b>Investigating Sound: Can You Construct an Instrument That Will Make Different Pitches? (470)</b> <i>Vocabulary: pitch, energy, vibration, waves</i> <i>*designed as a post assessment</i></p>	

## SALTA 3<sup>rd</sup> Grade Content Integration

Unit 4: One of a Kind		
Reading Street Big Question: What does it mean to be unique?		
Content	Social Studies	Science
Essential Question	How are cultures affected by their environment?	What is the relationship between the earth and the moon?
Content Standards	<p><b>Standard 2: Students will understand cultural factors that shape a community.</b></p> <p><b>Objective 1: Evaluate key factors that determine how a community develops.</b></p> <ol style="list-style-type: none"> <li>a. Identify the elements of culture (e.g. language, religion, customs, artistic expression, systems of exchange).</li> <li>b. Describe how stories, folktales, music, and artistic creations serve as expressions of culture.</li> <li>c. Compare elements of the local community with communities from different parts of the world (e.g. industry, economic specialization)</li> <li>d. Identify and explain the interrelationship of the environment (e.g. location, natural resources, climate) and community development (e.g. food, shelter, clothing, industries, markets, recreation, artistic creations).</li> <li>e. Examine changes in communities that can or have occurred when two or more cultures interact.</li> <li>f. Explain changes within communities caused by human inventions (e.g. steel plow, internal combustion engine, television, computer).</li> </ol> <p><b>Objective 2: Explain how selected indigenous cultures of the Americas have changed over time.</b></p> <ol style="list-style-type: none"> <li>a. Describe and compare early indigenous people of the Americas (e.g. Eastern Woodlands, Plains, Great Basin, Southwestern, Arctic, Incan, Aztec, Mayan).</li> <li>b. Analyze how these cultures changed with the arrival of people from Europe, and how the cultures of the Europeans changed.</li> <li>c. Identify how indigenous people maintain cultural traditions today.</li> </ol>	<p><b>Standard 1: Students will understand that the shape of Earth and the moon are spherical and that Earth rotates on its axis to produce the appearance of the sun and moon moving through the sky.</b></p> <p><b>Objective 1: Describe the appearance of Earth and the moon.</b></p> <ol style="list-style-type: none"> <li>a. Describe the shape of Earth and the moon as spherical.</li> <li>b. Explain that the sun is the source of light that lights the moon.</li> <li>c. List the differences in the physical appearance of Earth and the moon as viewed from space.</li> </ol> <p><b>Objective 2: Describe the movement of Earth and the moon and the apparent movement of other bodies through the sky.</b></p> <ol style="list-style-type: none"> <li>a. Describe the motions of Earth (i.e., the rotation [spinning] of Earth on its axis, the revolution [orbit] of Earth around the sun).</li> <li>b. Use a chart to show that the moon orbits Earth approximately every 28 days.</li> <li>c. Use a model of Earth to demonstrate that Earth rotates on its axis once every 24 hours to produce the night and day cycle.</li> <li>d. Use a model to demonstrate why it seems to a person on Earth that the sun, planets, and stars appear to move across the sky.</li> </ol>

### SALTA 3<sup>rd</sup> Grade Content Integration

Essential Vocabulary	indigenous cultures, American Indian, Eastern Woodlands, Plains, Great Basin, Southwestern, Arctic, language, religion, customs, artistic expression, Europe, economic specialization, exchange systems, markets		model, orbit, sphere, moon, axis, rotation, revolution, appearance
Suggested Unit Resources	UEN Links: Lesson Ideas: <a href="http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml">http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml</a> Websites: <a href="http://www.uen.org/core/socialstudies/third/web.shtml">http://www.uen.org/core/socialstudies/third/web.shtml</a> Lessons and Standards: <a href="http://www.uen.org/core/core.do?courseNum=6030">http://www.uen.org/core/core.do?courseNum=6030</a>		State Science OER Textbook: <a href="http://www.schools.utah.gov/CURR/science/OER.aspx">http://www.schools.utah.gov/CURR/science/OER.aspx</a> Teacher Resource Book: <a href="http://www.uen.org/core/science/sciber/TRB3/I.shtml">http://www.uen.org/core/science/sciber/TRB3/I.shtml</a> USOE supports: <a href="http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx">http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx</a>
Explicit Ties to Reading Street	N/A		N/A
Reading Street Online Readers	Trading this for That (L180) It's a Fair Swap (L590) Let's Make a Trade (L660) What's Money all About (L880) We Want Soup (L350) Life in the Arctic (L590) Ice Fishing in the Arctic (L680) Journey Across the Arctic (L620) I Have a Dollar (L120) Email Friends (L350) The Market Adventure (L360 ) With a Twist (L650)	Kiko's Kimono (L250) A Tea Party with Obachan (L640) Cowboy Slim's Dude Ranch (L620) His Favorite Sweatshirt (L830) Happy New Year! (L690) Celebrate Around the World (L510) Life Overseas (L990) Our New Home (L420) A Child's Life in Korea (L770) Joanie's House Becomes a Home (L510) It's a World of Time Zones (L930)	Earth in Space (L730) Earth's Closest Neighbor (L780) Earth, Sun and Moon (L740) Galileo: The Man and the Spacecraft (G6) Meet the Moon! (G4) The Moon (L780) Moon Landings (L950) Moonscape: The Surface of the Moon (L480) The Sun and the Seasons (L710) Sun, Earth and Moon (L860) Wonders in the Sky (L670) Earth in Motion (L730) Darkness into Light (L820) Earth and Its Neighbors (L840) Earth and Space (L270) Exploring Earth and Space (L570) The Sun and the Seasons (L700)

## SALTA 3<sup>rd</sup> Grade Content Integration

Unit 5: Cultures				
Reading Street Big Question: What happens when two ways of life come together?				
Content	Social Studies		Science	
Essential Question	How does government take care of a citizen rights and responsibilities?		What is gravity, and how does it effect motion of objects?	
Content Standards	<p><b>Standard 3: Students will understand the principles of civic responsibility in classroom, community, and country.(pledge, flag) (voting, jury, taxpaying)</b></p> <p><b>Objective 1: Describe the rights and responsibilities inherent in being a contributing member of a community.</b></p> <ol style="list-style-type: none"> <li>a. Identify how these rights and responsibilities are reflected in the patriotic symbols and traditions of the United States (i.e. Pledge of Allegiance, flag etiquette).</li> <li>b. List the responsibilities community members have to one another.</li> <li>c. Identify why these responsibilities are important for a functioning community (e.g. voting, jury duty, taxpaying, obedience to laws).</li> </ol>		<p><b>Standard 4: Students will understand that objects near Earth are pulled toward Earth by gravity.</b></p> <p><b>Objective 1: Demonstrate that gravity is a force.</b></p> <ol style="list-style-type: none"> <li>a. Demonstrate that a force is required to overcome gravity.</li> <li>b. Use measurement to demonstrate that heavier objects require more force than lighter ones to overcome gravity.</li> </ol> <p><b>Objective 2: Describe the effects of gravity on the motion of an object.</b></p> <ol style="list-style-type: none"> <li>a. Compare how the motion of an object rolling up or down a hill changes with the incline of the hill.</li> <li>b. Observe, record, and compare the effect of gravity on several objects in motion (e.g., a thrown ball and a dropped ball falling to Earth).</li> <li>c. Pose questions about gravity and forces.</li> </ol>	
Essential Vocabulary	right, responsibility, symbol, tradition, patriotic, government, civic, respect		distance, force, gravity, weight, motion, speed, direction, simple machine	
Suggested Unit Resources	UEN Links: Lesson Ideas: <a href="http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml">http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml</a> Websites: <a href="http://www.uen.org/core/socialstudies/third/web.shtml">http://www.uen.org/core/socialstudies/third/web.shtml</a> Lessons and Standards: <a href="http://www.uen.org/core/core.do?courseNum=6030">http://www.uen.org/core/core.do?courseNum=6030</a>		State Science OER Textbook: <a href="http://www.schools.utah.gov/CURR/science/OER.aspx">http://www.schools.utah.gov/CURR/science/OER.aspx</a> Teacher Resource Book: <a href="http://www.uen.org/core/science/sciber/TRB3/IV.shtml">http://www.uen.org/core/science/sciber/TRB3/IV.shtml</a> USOE supports: <a href="http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx">http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx</a>	
Explicit Ties to Reading Street	N/A		N/A	
Reading Street Online Readers	The Places Where We Live (L780) Communities: Alike and Different (L700)	Land and Water: How Geography Affects Our Community (L860) Why We Live Where We Live (L860)	Zero Gravity (L1040) Newton and Gravity (L820)	Aim High: Astronaut Training (L710) Earth's Place in Space (L850)

## SALTA 3<sup>rd</sup> Grade Content Integration

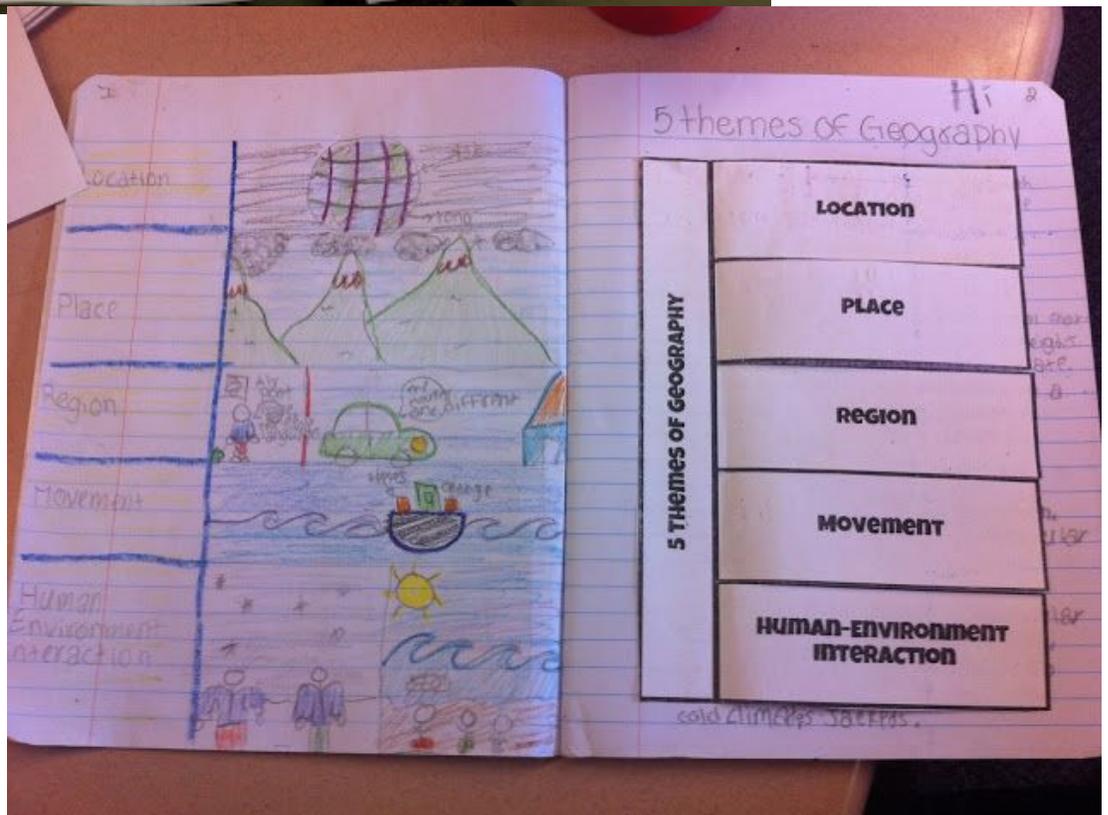
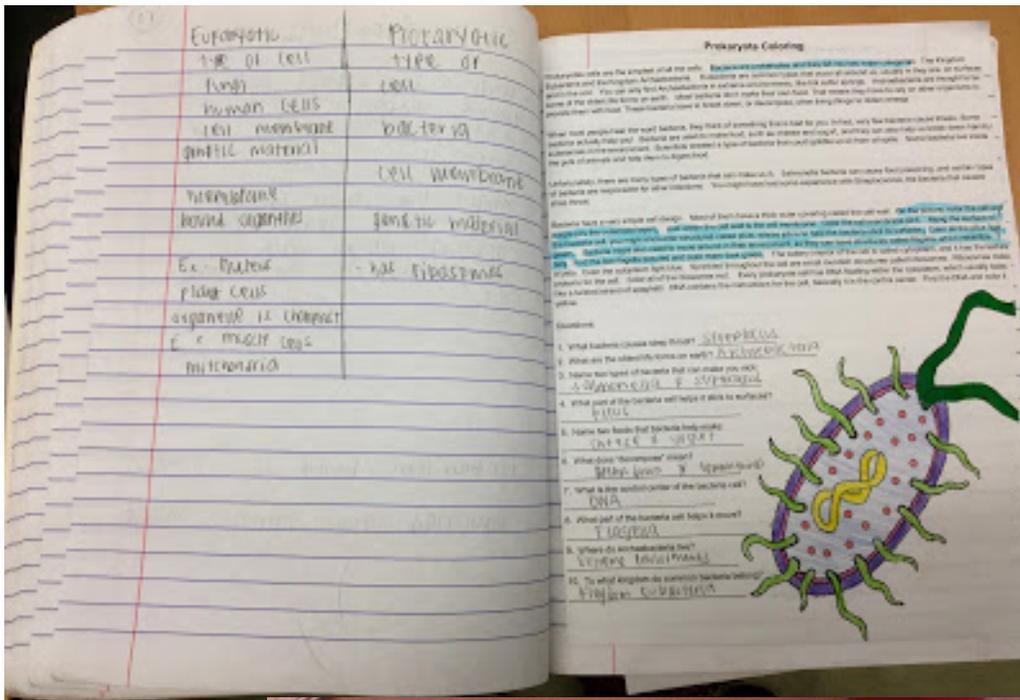
Unit 6: Freedom		
Reading Street Big Question: What does freedom mean?		
Content	Social Studies	Science
Essential Question	How can I be a good citizen?	How can forces be used to make objects move, change direction or stop?
Content Standards	<p><b>Standard 3: Students will understand the principles of civic responsibility in classroom, community, and country.</b></p> <p><b>Objective 2: Identify ways community needs are met by government.</b></p> <ol style="list-style-type: none"> <li>a. Differentiate between personal and community needs.</li> <li>b. Identify roles of representative government (e.g. make laws, maintain order, levy taxes, provide public services).</li> <li>c. Research community needs and the role government serves in meeting those needs.</li> </ol> <p><b>Objective 3: Apply principles of civic responsibility.</b></p> <ol style="list-style-type: none"> <li>a. Engage in meaningful dialogue about the community and current events within the classroom, school, and local community.</li> <li>b. Identify and consider the diverse viewpoints of the people who comprise a community.</li> <li>c. Demonstrate respect for the opinions, backgrounds, and cultures of others.</li> </ol>	<p><b>Standard 3: Students will understand the relationship between the force applied to an object and resulting motion of the object.</b></p> <p><b>Objective 1: Demonstrate how forces cause changes in speed or direction of objects.</b></p> <ol style="list-style-type: none"> <li>a. Show that objects at rest will not move unless a force is applied to them.</li> <li>b. Compare the forces of pushing and pulling.</li> <li>c. Investigate how forces applied through simple machines affect the direction and/or amount of resulting force.</li> </ol> <p><b>Objective 2: Demonstrate that the greater the force applied to an object, the greater the change in speed or direction of the object.</b></p> <ol style="list-style-type: none"> <li>a. Predict and observe what happens when a force is applied to an object (e.g., wind, flowing water).</li> <li>b. Compare and chart the relative effects of a force of the same strength on objects of different weight (e.g., the breeze from a fan will move a piece of paper but may not move a piece of cardboard).</li> <li>c. Compare the relative effects of forces of different strengths on an object (e.g., strong wind affects an object differently than a breeze).</li> <li>d. Conduct a simple investigation to show what happens when objects of various weights collide with one another (e.g., marbles, balls).</li> <li>e. Show how these concepts apply to various activities (e.g., batting a ball, kicking a ball, hitting a golf ball with a golf club) in terms of force, motion, speed, direction, and distance (e.g. slow, fast, hit hard, hit soft).</li> </ol>
Essential Vocabulary	right, responsibility, symbol, tradition, patriotic, government, civic, respect	N/A

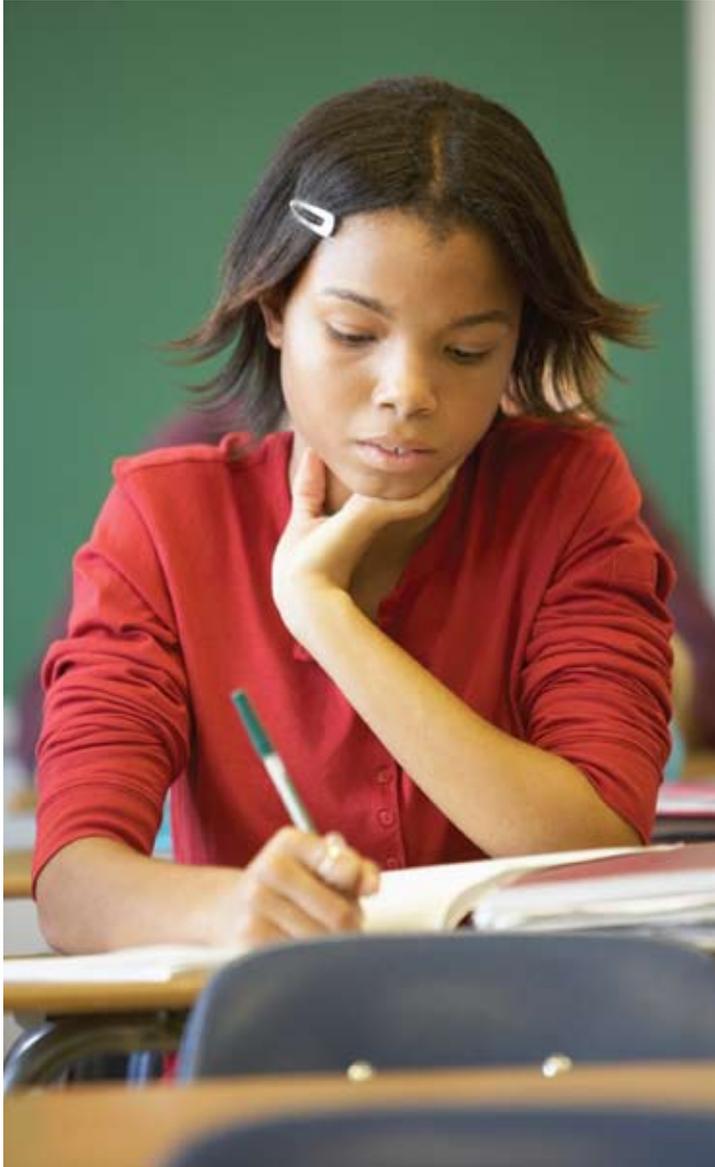
## SALTA 3<sup>rd</sup> Grade Content Integration

Suggested Unit Resources	UEN Links: Lesson Ideas: <a href="http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml">http://www.uen.org/core/socialstudies/third/lesson_ideas.shtml</a> Websites: <a href="http://www.uen.org/core/socialstudies/third/web.shtml">http://www.uen.org/core/socialstudies/third/web.shtml</a> Lessons and Standards: <a href="http://www.uen.org/core/core.do?courseNum=6030">http://www.uen.org/core/core.do?courseNum=6030</a>		State Science OER Textbook: <a href="http://www.schools.utah.gov/CURR/science/OER.aspx">http://www.schools.utah.gov/CURR/science/OER.aspx</a> Teacher Resource Book: <a href="http://www.uen.org/core/science/sciber/TRB3/III.shtml">http://www.uen.org/core/science/sciber/TRB3/III.shtml</a> USOE supports: <a href="http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx">http://schools.utah.gov/CURR/science/Elementary/Third-Grade.aspx</a>	
Explicit Ties to Reading Street	N/A		N/A	
Reading Street Online Readers	Our Food (L180) Let's Surprise Mom (L440) The Shopping Trip (L510) The Road to New York (L630) The Statue of Liberty (L310) The Statue of Liberty a Gift from France (L310) The French Connection (L740) The Eagle, A Symbol of Freedom (G3)	The Eagle is Free (L220) New York's Chinatown (L690) China's Special Gifts to the World (L720) We Have Rules (L300) Swimming in a School (L570) The Three Bears and Goldilocks (L510)	The Effect of Forces (L900) Force and Motion (L130) Force and Motion (L610) Force and Motion (L720) Forces and Motion Around Us (L490) Forces and Sounds (L160) How Bikes Work (L770) How Things Move (L300)	Motion (L720) Objects on the Move (L830) Objects in Motion (L710) Levers, Gears, and Pulleys (L900) Machines (L650) Machines at Work (L540) Simple Machines (L190) The Use of Machines (L840)
Science Exemplars	<p><b>How Far Can You Make A Toy Car Go? (211)</b>  <i>Vocabulary: variable, fair test, inertia, gravity, mass, motion</i></p> <p><b>Can You Make a Paperclip Fly? (229)</b>  <i>Vocabulary: air pressure, lift, thrust, drag, gravity</i></p> <p><b>Can You Design A Marble Mover? (248)</b>  <i>Vocabulary: inertia, gravity, friction, force, motion, variable</i></p> <p><b>Weight's Affect on Pendulum Motion (300)</b>  <i>Vocabulary: pendulum, motion, fair test, control variable,</i></p> <p><b>How Can a Simple Machine Make Work Easier? (336)</b>  <i>Vocabulary: lever, inclined plane, wheel and axle, screw, wedge, pulley, inertia, gravity, friction, push and pull, energy,</i></p> <p><b>Simple Machines: How Can You Lift a Heavy Object? (462)</b>  <i>Vocabulary:</i></p> <p><b>How Does a Sail Affect the Motion of a Vehicle? (743)</b>  <i>Vocabulary: force, motion, reliability, variable, Newton's Third Law, speed, distance, resistance, mass,</i></p>			

# SALTA 3<sup>rd</sup> Grade Content Integration

# Using Interactive Notebooks as a tool to help organize Content Integration Time





# Integrating Interactive Notebooks

*A daily learning cycle to empower students for science*

—Cheryl Waldman and Kent J. Crippen—

An interactive notebook can be a powerful instructional tool, allowing students to take control of their learning while processing information and engaging in self-reflection. The three-part learning cycle of an interactive notebook makes it easy to use and integrate into the science lesson. The basic idea has its roots in a number of programs (TCI 2000; AVID 2007), but applying knowledge about how students learn science can make this an even more effective tool.

At its best, an interactive notebook provides a varied set of strategies to create a personal, organized, and documented learning record. In addition to presenting techniques for design, implementation, and assessment, this article describes how interactive notebooks empower students for science achievement.

## Design

Based upon the flow of information between teachers and students in a science lesson, the interactive notebook is composed of three types of activities. *In* activities provide a scaffold for class discussion by activating prior knowledge and motivating students immediately as they come into the classroom. *Through* activities allow the teacher to direct student learning from a fragmented conceptual knowledge to understanding. *Out* activities emphasize reflection on key concepts at the end of the lesson, before students go out of the classroom. The *in*, *through*, and *out* activities provide a daily rhythm of learning. *In* and *out* activities are prompted student responses; *through* activities are provided by the teacher.

Each class period begins with students completing an *in* activity that reviews a concept from the previous class, introduces the topic of the day, or probes their prior knowledge related to the topic at hand. Based on their own understanding and creativity, students direct this activity as they respond to teacher prompts or questions—resulting in an output of information. *In* activities take about 5 minutes to complete and can be done alone or in small groups. While circulating around the room, the teacher quickly provides individualized feedback and uses the activity to prompt discussion for the lesson to follow.

The daily lesson constitutes the *through* activity. This can include conducting lecture or discussion, engaging in a laboratory procedure, or viewing a film or documentary during class—all of which are initiated and directed by the teacher. In *through* activities, objective information (course concepts) is provided to students—resulting in an input of information.

An *out* activity occurs at the end of class. It closes the day's lesson with an emphasis on reviewing key concepts, using deliberate practice, or drawing connections among ideas. Like *in* activities, *out* activities are teacher-initiated, but student-directed. Teachers provide the prompts, but students produce the answers, diagrams, and so on—allowing them to reflect on their own learning.

Individual student work created from participating in the *in* and *out* activities is mapped onto the left page of a standard spiral-bound notebook; *through* activities are placed on the right-hand page. Students quickly become familiar with

this daily learning cycle and come to expect it each class (Figure 1). However, the cycle can be modified for extended projects or laboratory activities. Color and highlighting are used throughout the notebook to emphasize and reinforce learning. Students are expected to use color to emphasize main concepts and vocabulary, to indicate levels of questions they write, and to distinguish details of diagrams and concept maps.

The power of an interactive notebook lies in the *in* and *out* activities, while the *through* activity functions primarily as an informational element. The activities on the left side of an interactive notebook (*in* and *out*) are meant to

- ◆ engage students with the new information included on the right side of the page (*through*),
- ◆ assess student understanding both prior to and after instruction,
- ◆ emphasize their thinking about thinking (metacognition), and
- ◆ create representations of their understanding that demonstrate learning (Figure 2).

*In* and *out* activities are distinguished by their purpose, not by the types of strategy employed. In fact, depending on the lesson goals, the *in* and *out* activities might use the same strategies. For example, students may be asked to review concepts from a previous lesson by contrasting and comparing during an *in* activity (e.g., mitochondria versus chloroplasts). Or, they may be asked to contrast and compare an *out* activity following a *through* lesson (e.g., plant versus animal cell structure).

Interactive notebooks are designed to foster thinking, writing, and documenting science in a variety of

**FIGURE 1**

### Structural overview of an interactive notebook.

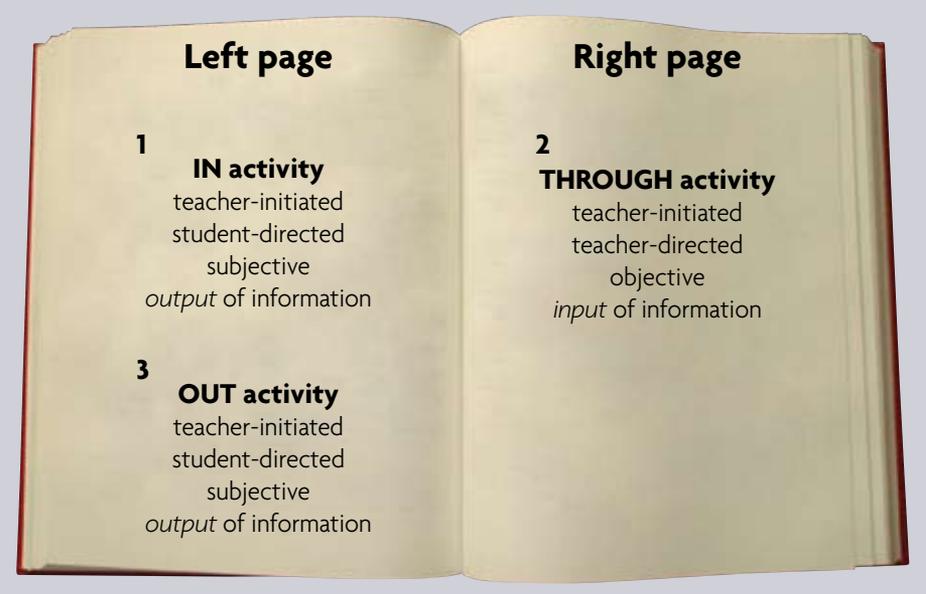


FIGURE 2

**Example interactive notebook activities.****Left side**

Examples of student-directed *in* and *out* activities:

- ◆ A drawing, photo, or magazine picture that illustrates a new concept or idea
- ◆ Questions, opinions, and personal reflections about the new information
- ◆ Predictions, contradictions, or quotations relating to the *through* activity
- ◆ Practice problems or inquiry activities
- ◆ Metaphors, analogies, acronyms, poems, songs, or cartoons that capture the new information or issue
- ◆ Connections between the information, and the student's life, another course, or the world
- ◆ Reflections on and summary of activities

**Right side**

Examples of teacher-directed *through* activities:

- ◆ Lecture, discussion, or reading notes
- ◆ Laboratory procedure or rough draft
- ◆ Film, video, and documentary facts or notes
- ◆ Small- or large-group discussion notes
- ◆ Collaborative group process summary
- ◆ Excerpts of a news or journal article
- ◆ Vocabulary exercises
- ◆ Worksheets and activities

formats. Most current, high-level strategies for inquiry science are easily adapted to the pages of an interactive notebook. These include Vee maps (Coffman and Riggs 2006; Roehrig, Luft, and Edwards 2001) or the science writing heuristic (Hand and Keys 1999), as well as note-taking systems such as Cornell notes (Pauk 2006).

**Empowerment**

At professional development programs across our large school district, we hear teachers speak of the interactive notebook being successfully implemented in all forms of high school science (e.g., biology, chemistry, physics, Earth science) at various levels (e.g., introductory, honors, advanced placement). While the depth, breadth, and general requirements of the strategies vary based on classroom and curricular factors, the cycle of *in-through-out* activities is consistent among all classes that have used it successfully.

Our personal classroom research indicates that interactive notebooks contribute to learning; students perceive them as tools that positively impact their ability to learn science; and the notebook increases their ability to organize the materials associated with learning. Figure 3 (p. 54) illustrates the positive relationship between student notebook scores and final course grades for a group of students over one quarter of instruction. Student grades increase proportionally to their notebook scores—we believe the interactive notebook accounts for a significant amount of increased student learning.

Interactive notebooks can empower students for learning science because they

- ◆ require active engagement with course concepts;
- ◆ incorporate self-reflection;
- ◆ allow students to express their personal values,

experiences, and feelings;

- ◆ teach organizational skills;
- ◆ create pride in and ownership of class work; and
- ◆ help students visualize and demonstrate understanding as evidence of self-regulation.

The *in* and *out* activities of the interactive notebook require students to actively engage with the language, concepts, and skills of the curriculum. Active learning requires self-reflection and the explicit integration of new knowledge and experiences. Learning environments that include these components demonstrate a strong relationship with student achievement (Tuan, Chin, and Shieh 2005).

Emphasizing self-reflection affords students the opportunity to identify weaknesses in their understanding and to establish the personal relevance of ideas presented in the *through* activities. The interactive notebook also provides opportunities for students to engage in self-reflective and collaborative experiences that allow for meaningful negotiations between peers and the teacher. Students within a group may differ in their interpretation of and subsequent conclusions about data. At this point, the teacher may act as facilitator to ensure that student consensus occurs.

While acquiring and integrating new knowledge and skills, students come to view the notebook as a personal, organized, and documented record of their understanding. Each student's notebook becomes a unique expression of their effort and creativity, as well as a demonstration of their pride in and ownership of their work. Working within the interactive notebook, students become aware of the knowledge and skills required to control their learning—an understanding that can contribute to confidence and feelings of empowerment (Pajares 1996).

Student perception of the notebook's importance for success is often based on the organizational components of the process (e.g., numbered pages, a table of contents, handouts affixed to pages, and left- and right-side activities). By knowing where to locate the materials needed for learning, students feel more confident in their ability to learn science. The following student quotation, representative of most student comments from our classroom research, highlights how a student's perception changes with use of an interactive notebook: "This is the only class I am organized in. I feel more organized than I ever have before."

### Implementation

In the first days of the school year, each student is provided with (or must obtain) an identical spiral notebook. Once students have their interactive notebooks, the learning cycle begins and quickly becomes the daily routine. The structure of the *in* and *out* activities creates positive learning actions focused on sensemaking.

A strict format for introducing these tools should be designed in advance and followed closely. Our script includes the following rules:

- ◆ The process of an interactive notebook should be thoroughly explained to students, and a follow-up explanatory letter should be sent to parents.
- ◆ Only spiral bound notebooks should be used so the notebook can fold in half (no three-ring binders or bound-composition notebooks).
- ◆ A spiral notebook of about 70–100 pages is typi-

cally needed for one semester of work.

- ◆ Notebooks are taken home or securely stored in the classroom.
- ◆ All students should number their pages the same way (left side: even, right side: odd).
- ◆ Pages should not be torn out of the notebook.
- ◆ Students should write only with pencil, as use of ink pens promotes the tearing out of pages when mistakes are made. If pens are allowed, the teacher must strongly enforce the rule on not tearing out pages.
- ◆ Glue or tape is used to attach handouts or photocopies to the spiral-bound pages.
- ◆ Covers and inside pages should be designed to reflect defined criteria such as laboratory format, instructions for equipment use, author page, grading rubrics, or assignment types.
- ◆ At the beginning of the notebook, pages are set aside for reference handouts and a table of contents.
- ◆ Score sheets, grading rubrics, and assignment types should be affixed to the same place in all notebooks.
- ◆ Colored pencils, scissors, and glue sticks or tape (double-sided works best) are required daily supplies that need to be brought to class or supplied by the teacher.

If multiple sheets need to be affixed to notebook pages at the beginning of a new unit, then students participate in a "glue festival" to

attach handouts, labs, note outlines, and so on. For efficiency, students are given a limited amount of time (e.g., approximately 10 minutes). Trimming papers, gluing and coloring the various diagrams, and responding to the *in* and *out* prompts contribute to the degree of personal ownership and on-task behavior related to this learning strategy.

### Assessment

Since nearly all student work is completed in the notebook, assessment is simplified. However, the teacher is not required to take home and read hundreds of notebooks. Figure 4 summarizes a variety of easily adaptable grading techniques. Scores can be recorded on a seating chart,

**FIGURE 3**

### The impact of student notebooks.

Some exams included extra credit questions that resulted in final grade percentages higher than 100%.

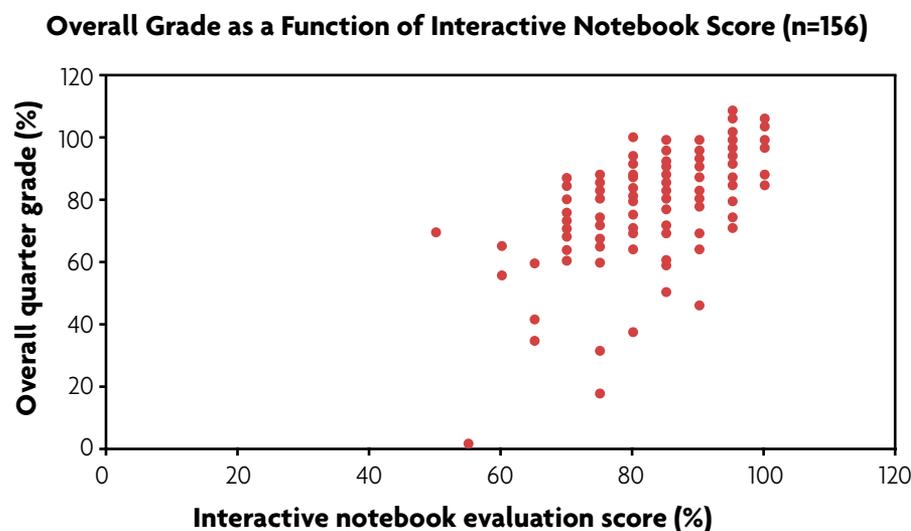


FIGURE 4

### Assessment strategies for an interactive notebook.

#### Quick grades for *in* and *out* activities:

- ✓ The teacher walks around the room or students hold up notebooks for a visual inspection.
- ✓ The teacher uses the seating chart to record scores or stamps student notebooks individually to verify assignment completion.
- ✓ Students complete a simple teacher-designed self-evaluation form and hand it in.
- ✓ A 3-point rating scale is used for feedback (Wow = 3, What is expected = 2, Made an attempt = 1).

#### Summative evaluations:

- ✓ Completeness is evaluated two to four times a semester.
- ✓ Rubrics are created and used for grading paragraphs, summaries, and other more complex student work.
- ✓ At the end of semester, rubrics with a standard numerical score are used to measure quality, depth, effort, completeness, organization, and improvement.

within each student's notebook, or summarized on small slips of paper.

### Conclusion

The power of an interactive notebook resides in students' engagement with sensemaking, metacognitive activities. Oftentimes students arrive to class and immediately launch into challenging new material, without setting the context by reflecting on previous classes. Similarly, classes sometimes end in midstream, finishing with the closing bell rather than with a reflection on the big ideas learned that day. *In* and *out* activities help teachers avoid these situations and provide an opportunity for students to reflect on their learning. While we suggest that the format of the interactive notebook be strictly defined, the utility of the design allows for the inclusion of a wide range of existing classroom activities.

Over the past few years, a good number of teachers from across our school district have been using action research in their classrooms to evaluate the impact of the interactive notebook. The response we hear is universally positive: These strategies are helping students engage in and learn science. Workshops for teachers on using the interactive notebook are very popular, and participating teachers who go on to implement interac-

Students treasure their interactive notebooks because they are personal and reflective; teachers value them because they represent a simple yet powerful method for helping students learn science.

tive notebooks comment that they will never go back to their previous strategies. Although the results of this research are incomplete, we find the endorsement by respected colleagues to be encouraging.

Working with the interactive notebook, students come to value sensemaking and become aware of the knowledge and skills required to control their learning. This in turn empowers students to become confident and focused, thereby improving their achievement. Students treasure their interactive notebooks because they are personal and reflective; teachers value them because they represent a simple yet powerful method for helping students learn science. ■

*Cheryl Waldman* (cawaldman@interact.ccsd.net) is a science teacher and department chair at Palo Verde High School in Las Vegas, Nevada; *Kent J. Crippen* (kcrippen@unlv.nevada.edu) is an associate professor of science education and technology at the University of Nevada in Las Vegas.

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## Using Interactive Notebooks

Interactive notebooks are a tool to help organize science and social studies information for students as they go through the day. For instance, you may have students read an informational passage at one of the stations during the ELA block, and then have students write a summary of that information in the content integration time of the ELA block, and during science/social studies time, have students complete an activity related to the topic. Helping students organize the information from these 3 different parts of the day allows teachers to pull all pieces together for students, organize information for spiral review, and provide a record of student progress. Notebooks can be formatted in different ways, but should include 3 distinct sections: In, Out and Through.

### **In:**

The “In” section is utilized to review concepts from previous lesson, introduce a new topic, or probe prior knowledge related to the new topic. You may choose to have students read a few paragraphs about a new topic, have them brainstorm with friends information related to a new topic, or have them summarize information that has been previously taught that might be related to a new topic.

### **Through:**

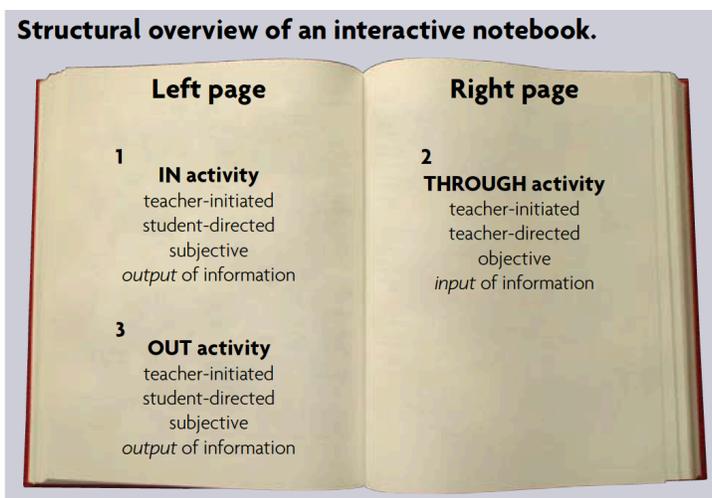
The daily lesson is the through activity. This can include explicit instruction or discussion, engaging in a laboratory procedure, or viewing a film or clip during class.

### **Out:**

Out activities are teacher-initiated, but student directed. The teacher provides the prompt, but the students produce the answer, diagrams, and so on – allowing them to reflect on their learning. For example, after reviewing the water cycle, students might be asked to write about the journey of a water droplet through the water cycle in a narrative form. The more students process information, the more likely they are to understand and retain the information longer.

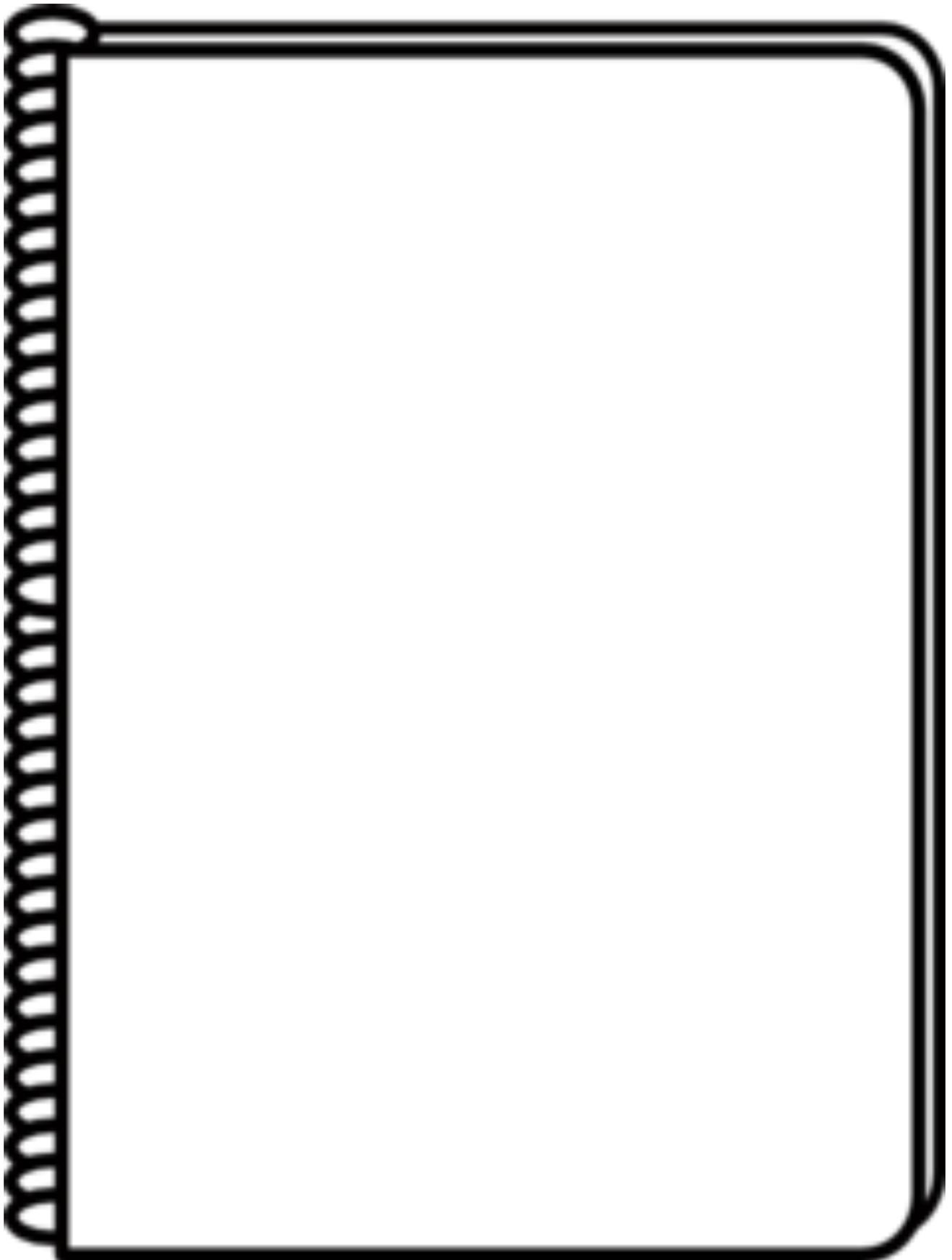
### **Important Things to Remember:**

- Every notebook page should have a title, and should be recorded into the table of contents
- Number the pages sequentially, and ensure all students are numbering pages the same. When you go back to reference a topic, all students should be able to go back to the



same page number. (Students, turn to page 12, and review the diagram of the water cycle)

- Do not remove any pages.
- Both right and left pages should be numbered. The first pages are reserved for a table of contents and instructions. Other information will be included as appendices.
- Use color to help organize your information
- Handouts, foldables, and other papers should be glued or taped in place. No staples.
- Notebooks should be graded weekly using self, peer, and teacher rubrics.





## Interactive Notebook Rubric

3	<ul style="list-style-type: none"> <li>• Notebook contents are complete, dated, labeled, and organized</li> <li>• Information on right-side and left-side topics correct</li> <li>• Displays superior understanding of content material</li> <li>• Well developed processing assignments that use color and effective diagrams</li> <li>• In-depth reflections about the work done</li> </ul>
2	<ul style="list-style-type: none"> <li>• Notebook contents are almost complete, dated, labeled, and organized</li> <li>• Information on right-side and left-side topics are mostly correct</li> <li>• Displays limited concept of understanding of content material</li> <li>• Processing assignments incomplete or lack use of color and effective diagrams</li> <li>• Shows reflection about the work done</li> </ul>
1	<ul style="list-style-type: none"> <li>• Notebook contents are incomplete or not dated, labeled, or organized</li> <li>• Notes are Cornell style, with few or no questions</li> <li>• Information on right-side and left-side topics are partially correct</li> <li>• Displays superficial understanding of content materials</li> <li>• Processing assignments show minimal processing of information</li> <li>• Shows little reflection about the work done</li> </ul>

## Interactive Notebook Rubric

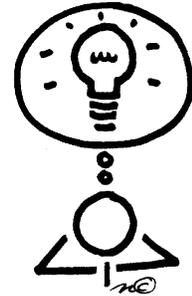
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## The Left Side (In & Out Activities)

The left page demonstrates your understanding of the information from the right side of the page. You work with the input and interact with the information in creative, unique and individual ways. The left side incorporates and reflects how you learn science as well as what you learn in science.



### OUTPUT GOES ON THE LEFT SIDE!

#### Left side items include:

- Brainstorming
- Concept maps
- Riddles
- Your questions
- Pictographs
- Cartoons
- Venn Diagrams
- Data and Graphs you generate
- Analysis writing
- Reflecting writing
- Quick write
- Four square
- Mnemonics
- Significant statements
- Flowchart
- Graphic organizers
- Drawing
- Writing prompts

### Things to Know About Left Sides

- Every left side pages gets used
- Always use color . . . It helps the brain learn and organize information
- Quizzes and tests are left side items
- Homework problems are left sides

## The Right Side (Through Activities)

The right page is a place where you put all information that we learn in class.

### INPUT GOES ON THE RIGHT SIDE!

#### Right side items include:

- Notes
- Guest speaker Notes
- Vocabulary words and definitions
- Video and film Notes
- Teacher Questions
- Readings
- Sample Problems



### Keys to Fantastic Right Sides

- Always start the page with the date and title at the top
- The right side is for writing down information you are given in class
- Use Cornell style notes for lecture, discussion, etc.
- Write up your student questions ASAP
- Write summaries at the bottom of each page of notes to reduce amount you have to study
- Use highlighting and color to make important info stand out



the

## **Unit Reflection:**

At the end of each unit, you will be asked to reflect upon your work. This writing sample begins on the left side of the notebook and continues on the right. While there is no required length, high quality reflection uses 1-2 pages of the notebook. Attach the parent feedback form at the bottom of the right hand page as required.

## **High Quality Reflection:**

Select up to 4 items that represent your best work, 2 from the left side, 2 from the right side. Address the specific reasons why you chose these items as your best work as well as what these assignments reflect about your skills as a scientist/engineer. Please note: Reasoning that it was “fun” or just that you liked it is NOT adequate reflection. Some ideas to consider include:

- What about the left side activities helped you better understand and recall the material?
- How did you use different levels of questions to help you reach a deeper level of understanding?
- What did you learn from the activity (both content-wise and learning-wise)?
- What aspects of the work were high quality and why?
- What you would do differently in the future and why?

## **Assessment of Skill Set:**

High quality reflection also examines your skill as a student. Skills you might discuss are your organization, analysis, logic, creativity, thoroughness, accuracy of information, ability to put new information together, understanding new concepts, etc. What specific study skills have you employed to be successful in this class? What organizational strategies appear in the notebook helped you learn the most? Elaborate.

## **Assessment of Unit Work as a Whole:**

Indicate your overall rating of your notebook based on the rubric. Justify your rating with specific examples. Has your notebook improved from past notebooks? Explain.

## **Looking to the Future:**

What are your goals for improvement in this class? List specific areas in which you feel you need to improve or need help improving. What specific changes would you like to see in this class? Explain.

**Dear Parent/Guardian:**

This Interactive Notebook represents your student's learning to date and should contain the work your student has completed in science class. Please take some time to look at his or her Interactive Notebook, read the reflection written in the notebook, and respond to any of the following:

*The work I found most interesting was \_\_\_\_\_because...*

What does the notebook reveal about your student's learning habits or talents?

*My student's biggest concern about this class is...*

**Parent/Guardian** Signature: \_\_\_\_\_Date:\_\_\_\_\_

If you have immediate concerns, please feel free to contact me at:

**Dear Parent/Guardian:**

This Interactive Notebook represents your student's learning to date and should contain the work your student has completed in science class. Please take some time to look at his or her Interactive Notebook, read the reflection written in the notebook, and respond to any of the following:

*The work I found most interesting was \_\_\_\_\_because...*

What does the notebook reveal about your student's learning habits or talents?

*My student's biggest concern about this class is...*

**Parent/Guardian** Signature: \_\_\_\_\_Date:\_\_\_\_\_

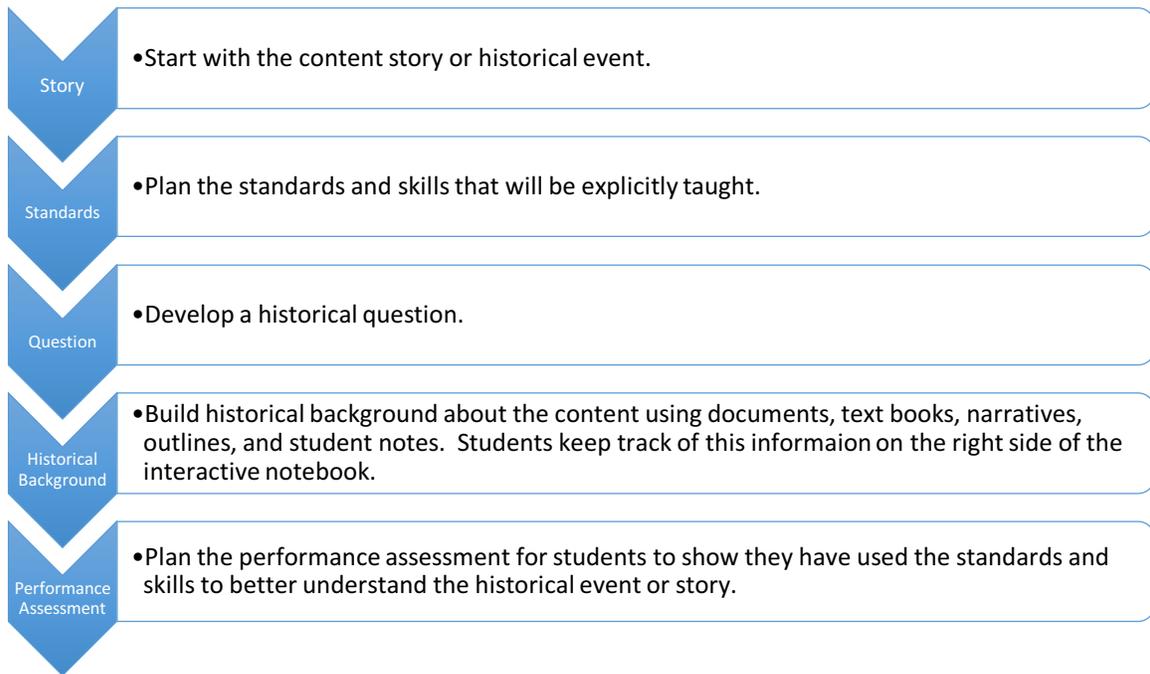
If you have immediate concerns, please feel free to contact me at:

# Adult Input Page

**To the adult:** Completing this page will help your student to have a better understanding of the material learned in class. When a person teaches another, both learn, but the "teacher" often learns much more than the "student." Your student should discuss and teach you a concept covered in class. Please write down one or two sentences explaining what YOU LEARNED from the discussion and tutoring.

Date	What I LEARNED	Adult Signature

## Steps to Create an Integrated Social Studies Lesson



### Example

1. The story of Betsy Ross and what flags symbolize
2. Standards
  - a. Draw Conclusions
  - b. Social Studies: Basis for the patriotic and citizenship traditions we have today (Flags and Flag Etiquette)
3. What does a flag say about you?
4. Students build background knowledge about flags and Betsy Ross by:
  - a. Reading short passages about Betsy Ross, flags, and flag etiquette.
  - b. Take notes from teacher inputs on the right side of their interactive notebook.
  - c. Distribute photos of different flags and have students in small groups draw conclusions about what they think the colors and symbols mean.
  - d. Use the USA flag and one other flag to teach what the colors and symbols mean on those flags.
5. On the left side of the interactive notebook, have students create a flag using colors and symbols to represent themselves. Have students write a brief description about their flag. Let students view each others flag and draw conclusions about their classmates based on only looking at the flag they created.

## The Historical Thinking Skills of Sourcing and Corroboration

### Sourcing

Sourcing is a skill historians use when they first encounter any type of document to determine who wrote the document, when it was written, as well as the circumstances of its creation.

### Importance of Sourcing

Sourcing documents provides students important insights into primary or secondary sources before even reading it. The source of a document can change the entire meaning of what is behind the words, charts, graphs, or political cartoon. Before reading a document, students should ask

- Who wrote this?
- What is the author's perspective?
- Why was it written?
- When was it written?
- Where was it written?
- Is this source Reliable? Why? Why not?

### Example



Source:

- Estelle Ishigo watercolor painting, "Home," Heart Mountain, December 1942
- Estelle Ishigo was a European American sent to Heart Mountain Relocation Camp due to her husband's Japanese heritage.

Possible Sourcing Questions about this painting.

1. Who created this painting?
2. Is the Artist a reliable source for what housing was like in the internment camps?
3. Why would this be an accurate depiction of an internment camp?
4. Where was she when this was created? Why is that important?

## **Corroboration**

Corroboration asks students to consider details across multiple sources to determine points of agreement and disagreement. Anytime a student compares different sources that is considered to be corroboration. After reading or viewing two or more documents on the same subject students answer the following questions:

- After reading the first document, what does the other document say?
- Do these documents agree? Why or why not?
- Is one document more reliable than the other document?

### **Core Standards for Corroboration:**

- **4<sup>th</sup> Grade:**
  - [CCSS.ELA-LITERACY.RI.4.6](#)  
Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided
  - [CCSS.ELA-LITERACY.RI.4.9](#)  
Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
  
- **5<sup>th</sup> Grade:**
  - [CCSS.ELA-LITERACY.RI.5.6](#)  
Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
  - [CCSS.ELA-LITERACY.RI.5.9](#)  
Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

## Online Resources for Primary Sources

UEN. See image below

<http://onlinelibrary.uen.org/library>

Links to primary and secondary resources including the ones listed above as well as a couple others.

Library of congress

<https://www.loc.gov/>

National database of historical records including primary and secondary sources

Mountain West Digital Library

<http://mwdl.org/>

A central search portal for digital collections about the Mountain West region.

National Archives for Teachers

<http://www.archives.gov/education/>

Activities, tools, and a document search engine for using historical documents in lesson plans.

The screenshot shows the Utah's Online Library website interface. At the top left is the logo for Utah's Online Library, and at the top right is the UEN logo with the text "A SERVICE OF THE UEN UTAH EDUCATION NETWORK WWW.UEN.ORG". Below the logos is a blue and green horizontal bar. The main content area is divided into three columns:

- General Reference Collection:** CultureGrams, Digital Science Online, Digital Science Online - Spanish, EBSCO, eMedia, Gale Kids InfoBits Grades K-6, Gale Research in Context Grades 6-8, Gale Reference Collection Grades 9-12, LearningExpress Library, NoodleTools, Soundzabound, World Book Encyclopedia.
- Utah Collection:** Counties of Utah, Deseret Morning News, Open Educational Resources, Preschool Pioneer, The Salt Lake Tribune, Utah State Archives, Utah Collections Multimedia Encyclopedia, Utah Digital Newspapers, Utah's Local Newspapers.
- Additional Library Resources:** ALA Websites for Kids, DocsTeach, eThemes, **Library of Congress** (highlighted with a red box), Mountain West Digital Library, National Archives, NROC HippoCampus, Spanish Resources, Thinkfinity.

## The 5 E Learning Cycle Model

### An Inquiry Approach to Science Learning

<b>Engagement</b>	Object, event or question used to engage students. Connections facilitated between what students know and can do.
<b>Exploration</b>	Objects and phenomena are explored. Hands-on/lab-based activities with guidance.
<b>Explanation</b>	Students explain their understanding of their findings. Teacher elaborates on their findings with explicit instruction.
<b>Elaboration</b>	Activities allow students to apply concepts in context, and build on or extend understanding and skill.
<b>Evaluation</b>	Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.

**Engage:** Learner has a need to know, therefore, defines questions, issues or problems that relate to his/her world.

Learner	Teacher
Calls upon prior knowledge	Poses problems
Identifies problems to solve, decisions to be made, conflict to be resolved	Ask questions
Writes questions, problems, etc.	Assess prior knowledge

**Explore:** Learner gathers, organizes, interprets, analyzes, and evaluates data.

Learner	Teacher
Hypothesizes and Predicts	Shows students how to use new tools
Explores resources and materials	Guide students in taking more and more responsibility in investigations
Design and carry out investigations with care	Help design and carry out skills of recording, document, and drawing conclusions
Analyze data and draw conclusions	Help students form tentative explanations

**Explain and Clarify:** Learner clarifies understandings discovered, reaches conclusions or generalizations and communicates in varying modes and forms.

Learner	Teacher
Express ideas in a variety of ways: Interactive Notebooks	Provides feedback
Share understandings and feedback, while working collaboratively with other students	Explicitly teaches the new content/objective ensure student understanding
Offer explanations	
Tie findings from investigations to material explicitly taught by teacher	

**Expand:** Learner applies these conclusions or generalizations to solve problems, make decisions, perform tasks, resolve conflicts or make meaning

Learner	Teacher
Applies new knowledge	Provides feedback
Solves problems	Makes open suggestions
Seek further clarification	Asks new questions
Reflect with adults and peers	Ensures student reflection

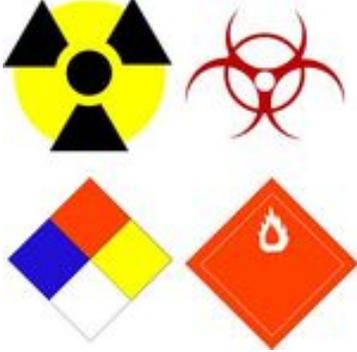
## CSD ELEMENTARY LAB REPORT EXPECTATIONS

<b>Introduction</b>	<p><b>TITLE</b> Appropriately title your lab as per teacher instruction.</p>
	<p><b>PURPOSE</b> This section should describe the purpose or the problem and be in paragraph form. A purpose should include any research information on the subject. It should also include relevant background information and why the lab activity is important. References should be cited when applicable.</p>
	<p><b>VARIABLES</b> A variable is anything that you can change in an experiment. Only 1 variable should be changed during an experiment. The rest of the variables should be controlled.</p> <p>For example, if you are trying to determine which amount of fertilizer helps plants grow the tallest, your variable is the amount of fertilizer. The controls would be the amount of water, the type of plants, etc.</p>
	<p><b>HYPOTHESIS</b> To construct a hypothesis, express what you think will be the effect of the independent variable on the dependent variable. This should be a cause and effect statement like the one below: <i>As the <u>independent variable</u> describe how you change it, the <u>dependent variable</u> will describe the effect.</i></p> <p>Example: As the diameter of a cars tires increase, the maximum speed of the car will decrease.</p>
	<p><b>PROCEDURE</b> This section should include a short paragraph describing the steps involved in the lab. Steps must be written in sentence form (no lists) and must not contain “we,” “I,” “us,” etc.</p>
<b>Data &amp; Observations</b>	<p><b>DATA COLLECTION</b> This section should include all data collected. In most cases, data should be presented in a table. Make sure that all column headings include units for all data and calculations. Any qualitative (descriptive) observations should be written in complete sentences.</p> <p>Students should collect enough data to confidently say if their hypothesis is correct or incorrect. If data points are inconsistent (25, 3, 35) students shouldn’t just take an average of those 3 numbers and draw a conclusion. Instead, they should notice that the 3 doesn’t belong, and that they should continue to collect data until they see a pattern. 3 data points usually isn’t enough data to determine an appropriate conclusion.</p>
	<p><b>DATA &amp; GRAPHS</b> This section should include graphs representing the data set, or graphs representing averages of the data set in a visual format. There are many types of graphs that could be used, such as bar graphs, histograms, scatter plots, line graphs, pie charts, etc. Graphs should have an appropriate title, labeled axes, and display an appropriate scale.</p>
<b>Conclusion</b>	<p>This section of your lab report is the concluding statement of your argument. It should be written in paragraph formatting and include the following:</p> <ul style="list-style-type: none"> <li>• Restatement of the purpose of the lab</li> <li>• A brief account of what you did and how it came out</li> <li>• State whether hypothesis was correct or incorrect             <ul style="list-style-type: none"> <li>○ Use data from the lab to support your claim</li> <li>○ Describe relationships that were observed</li> </ul> </li> <li>• Discuss problems encountered in the experiment if appropriate</li> <li>• List suggestions for further study</li> </ul>

## ELEMENTARY LAB REPORT RUBRIC

<b>Title</b>	<b>1 Point</b>		<b>0 Points</b>	
	Appropriate title included in report.		No title included in report	
<b>Introduction</b>	<b>3 Points</b>	<b>2 Points</b>	<b>1 Point</b>	<b>0 Points</b>
	Introduction is in paragraph form, describes purpose, gives hypothesis, and shares detailed background information (at least 3 pieces).	Introduction is in paragraph form, describes purpose, and gives hypothesis, but does not provide enough background information.	Introduction is in paragraph form and either describes purpose or give hypothesis.	Introduction shares no relevant information or is not in paragraph form.
<b>Procedure</b>	<b>3 Points</b>	<b>2 Points</b>	<b>1 Point</b>	<b>0 Points</b>
	Steps are in paragraph form and written as full sentences (no listing), and there are no "I" statements.	Steps are in paragraph form and written as full sentences (no listing).	Steps are in paragraph form, but some procedures are listed.	Procedure exists entirely in list form, or lacks specificity.
<b>Data</b>	<b>5 Points</b>	<b>3 Points</b>	<b>1 Point</b>	<b>0 Points</b>
	Data tables and graph are included with all aspects labeled; information graphed is relevant, neat, and concise.	Data tables and graphs are included, but have missing labels, or lack of relevance and neatness.	Data table or graph not included.	No table or graphs included.
<b>Conclusion</b>	<b>3 Points</b>	<b>2 Points</b>	<b>1 Point</b>	<b>0 Points</b>
	Conclusion is in paragraph form with description of hypothesis result, reasons/explanation why results occurred using data points as evidence	Conclusion is in paragraph form with description of hypothesis results, reason results were occurred doesn't include appropriate data points	Conclusion is in paragraph form with description of hypothesis result included.	No appropriate conclusion given.

**Science Lab Group Member Responsibilities**  
Assigned jobs should rotate between members of the lab group

<p align="center"><b>Lead Engineer</b></p> 	<p align="center"><b>Assistant Engineer</b></p> 	<p align="center"><b>Safety Manager</b></p> 	<p align="center"><b>Materials Manager</b></p> 
<p align="center"><b>Lead Engineer</b></p> 	<p align="center"><b>Assistant Engineer</b></p> 	<p align="center"><b>Safety Manager</b></p> 	<p align="center"><b>Materials Manager</b></p> 

<p style="text-align: center;"><b>Materials Manager Responsibilities</b></p> <ul style="list-style-type: none"> <li>• Responsible for the pre-lab check-out and the post-lab check-in of all lab materials</li> <li>• Ensure work area is clean</li> <li>• Appoint team members to help with cleanup when needed</li> </ul>	<p style="text-align: center;"><b>Safety Manager Responsibilities</b></p> <ul style="list-style-type: none"> <li>• Report any safety incidents or broken lab equipment to teacher</li> <li>• Ensure all group members are following lab safety procedures</li> <li>• Report any group problems to teacher</li> </ul>	<p style="text-align: center;"><b>Assistant Engineer Responsibilities</b></p> <ul style="list-style-type: none"> <li>• Check lab reports of other group members to ensure completion</li> <li>• Assist with group discussions about lab, hypotheses, processes, results, etc.</li> </ul>	<p style="text-align: center;"><b>Lead Engineer Responsibilities</b></p> <ul style="list-style-type: none"> <li>• Keep group on-task</li> <li>• Share summary of group work/results with the class</li> <li>• Guide group members to arrive at appropriate conclusion based on lab hypothesis, processes, results, etc.</li> </ul>
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# Standards-Based Reporting

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I-CANYONS  
STUDENTS REPORTS

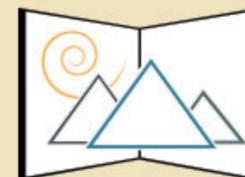
PRACTICE

PROGRESS

ACHIEVE

3rd

Grade



CANYONS  
School District

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## **Purpose of the I-CANYONS Student Reports**

The purpose is to communicate with parents and students about academic achievements, process of learning, and rate of progress. It is intended to inform students and parents or guardians about learning successes and to guide improvements when needed.

This report card is designed to communicate:

- Growth over time toward on grade level standards in language arts and math
- Mastery of academic standards in language arts and math
- Learning Skills that support academic success

The report card will consist of standards that students will be taught over the course of the school year and expected to master. Not all standards will be reported, only standards that are critical for communication with parents. Mastery can be achieved at any point during the school year.

Students will demonstrate their application of skills and understanding through class assessments, assignments, and projects.

Mastery of the standards is achieved when students demonstrate acquisition and application of knowledge and skills consistently over time to support future learning. A focus on mastery increases the likelihood of all students meeting high learning expectations.



### Student Information

Student Name: **REPORT TEST**  
 Student ID: 9999999  
 Academic Year: 2016-17  
 Grade: 03

## I-CANyons Student Reports 2016 - 2017

### School Information

School: ELEMENTARY  
 Principal: PRINCIPAL  
 Phone #: (801) 555-5555  
 Teacher: Teacher

#### Attendance

	PR1	PR2	EYS
Days in Term	0	0	0
Absent	0	0	0
Tardy	0	0	0

#### Key

PR1 : Progress Report 1  
 PR2 : Progress Report 2  
 EYS : End of Year Summary

#### Learning Skills Legend

**C = Consistently      U = Usually      S = Sometimes      R = Rarely**

#### Learning Skills

- Actively engaged in learning
- Respects rights, opinions, and property of others
- Cooperates with others
- Follows rules and procedures
- Completes tasks on time
- Works well independently
- Listens

**PR1      PR2      EYS**

	PR1	PR2	EYS

#### Parent Information

This Report Card is designed to communicate:

- Mastery of academic standards in language arts and math;
- Learning skills that support academic success; and
- Growth over time on grade-level benchmarks in reading and math.

Mastery of the standards is achieved when students demonstrate that they can apply acquired knowledge and skills consistently over time to support future learning.

Students will demonstrate their application of skills and understanding through class assessments, assignments, projects and other indicators.

On the back page of this Report Card you will find the standards students will be taught and expected to master by the end of the year. Your child's progress toward mastery will be reported in November and March. The end of year summary in June will report if mastery has been achieved.

#### Clarifying Remarks (optional)

PR1 Comments

**Progress Report 1 (PR1) & Progress Report 2 (PR2)**

3 : On Track at this Time - Student is on track to master this standard by the end of the school year.

2 : Progressing - Student is making progress toward meeting the standard at this time; sometimes demonstrating skills needed to meet standards, at other times showing a lack of understanding or ability to apply the concept or skills.

1 : Insufficient Progress - Student is showing risk of not mastering the standard by the end of the year and is receiving intervention support.

\* : Early Mastery - Student has already mastered this standard and is receiving support to extend learning.

**Year End Summary (EYS)**

3M : Mastered - Student has mastered this standard.

2NYM : Not Yet Mastered - Student has mastered some but not all of the skills necessary to consistently apply this standard to future learning.

1NYM : Not Yet Mastered - Student will require on-going intervention to master this standard.

**Additional Information**

# : Modified Standard - Please see the attached report for additional information.

Blank : Not Yet Assessed

**Language Arts**



PR1 PR2 EYS

**Speaking and Listening: I can...**

- Engage effectively in conversations by coming prepared, following discussion rules, building upon other's ideas, and asking for clarification

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**Reading Literature and Informational Texts: I can...**

- Ask and answer questions to demonstrate understanding referring to the text
- Identify the main idea and key details
- Recognize the structure (e.g., sequence, stanza, images)
- Compare and contrast the author's and reader's point of view


**Foundational Skills: I can...**

- Recognize and apply grade-level phonics in multisyllable words
- Read grade level text fluently with accuracy, appropriate rate, and expression to support comprehension


**Writing: I can...**

- Write opinion pieces using organized reasons
- Write informational texts to convey ideas with supporting details
- Write narrative text to develop real or imagined experiences
- Use technology to produce and publish writing


**Language: I can...**

- Use grammar skills when writing or speaking
- Apply spelling patterns when writing
- Use context clues, affixes, and roots to determine the meaning of vocabulary words and phrases


**Mathematics**



PR1 PR2 EYS

**Operation and Algebraic Thinking: I can...**

- Understand and represent multiplication
- Understand and represent division
- Fluently multiply two one-digit numbers within 100
- Fluently divide two one-digit numbers within 100
- Solve two-step word problems using addition and subtraction
- Solve two-step word problems using multiplication and division


**Numbers and Operations Base Ten: I can...**

- Fluently add within 1000
- Fluently subtract within 1000
- Multiply numbers by multiples of 10


**Numbers and Operations - Fractions: I can...**

- Understand and represent that a fraction is part of a whole
- Understand and represent fractions on a number line
- Understand equivalent fractions
- Compare fractions


**Measurement and Data: I can...**

- Solve problems involving time intervals to the nearest minute
- Solve problems involving volume and mass
- Generate, represent, and interpret data using scaled graphs and line plots
- Understand and apply area and perimeter


**Geometry: I can...**

- Understand quadrilaterals and their attributes
- Divide shapes into equal areas


**Progress Report 1 (PR1) & Progress Report 2 (PR2)**

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**Language Arts** 

PR1 PR2 EYS

**Speaking and Listening: I can...**

- Engage effectively in conversations by coming prepared, following discussion rules, building upon other's ideas, and asking for clarification

✓	✓	✓
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**Reading Literature and Informational Texts: I can...**

- Ask and answer questions to demonstrate understanding referring to the text
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✓	✓	✓
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- Write narrative text to develop real or imagined experiences
- Use technology to produce and publish writing

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**Language: I can...**

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**Mathematics** 

PR1 PR2 EYS

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**Numbers and Operations Base Ten: I can...**

- Fluently add within 1000
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**Numbers and Operations - Fractions: I can...**

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- Understand equivalent fractions
- Compare fractions

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**Measurement and Data: I can...**

- Solve problems involving time intervals to the nearest minute
- Solve problems involving volume and mass
- Generate, represent, and interpret data using scaled graphs and line plots
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**Geometry: I can...**

- Understand quadrilaterals and their attributes
- Divide shapes into equal areas

		✓
		✓

How to Mark the Report Card:

Yellow boxes indicate caution. The standard may not be ready to be assessed.

Checkmarks indicate standards are ready to be assessed and marked.

## Learning Skills Rubric

Indicator	Consistently	Usually	Sometimes	Rarely
<b>Actively engaged in learning</b>	<p><b>≥95% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Participate interactively (saying, writing, doing)</li> <li>Show attention by listening (see below) and reacting appropriately</li> </ul>	<p><b>≥80% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Participate interactively (saying, writing, doing)</li> <li>Show attention by listening (see below) and reacting appropriately</li> </ul>	<p><b>≥60% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Participate interactively (saying, writing, doing)</li> <li>Show attention by listening (see below) and reacting appropriately</li> </ul>	<p><b>≤59% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Participate interactively (saying, writing, doing)</li> <li>Show attention by listening (see below) and reacting appropriately</li> </ul>
<b>Respects rights, opinions, and property of others</b>	<p><b>≥95% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Keep my hands and feet to myself</li> <li>Be polite</li> <li>Value others' opinions</li> <li>Use materials appropriately</li> </ul>	<p><b>≥80% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Keep my hands and feet to myself</li> <li>Be polite</li> <li>Value others' opinions</li> <li>Use materials appropriately</li> </ul>	<p><b>≥60% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Keep my hands and feet to myself</li> <li>Be polite</li> <li>Value others' opinions</li> <li>Use materials appropriately</li> </ul>	<p><b>≤59% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Keep my hands and feet to myself</li> <li>Be polite</li> <li>Value others' opinions</li> <li>Use materials appropriately</li> </ul>
<b>Cooperates with others</b>	<p><b>≥95% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Work together in a positive manner for a common purpose</li> <li>Compromise when needed to benefit the task</li> <li>Seek input from others to understand their point of view (e.g., taking turns, sharing, asking questions, listening to the response)</li> </ul>	<p><b>≥80% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Work together in a positive manner for a common purpose</li> <li>Compromise when needed to benefit the task</li> <li>Seek input from others to understand their point of view (e.g., taking turns, asking questions, listening to the response)</li> </ul>	<p><b>≥60% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Work together in a positive manner for a common purpose</li> <li>Compromise when needed to benefit the task</li> <li>Seek input from others to understand their point of view (e.g., taking turns, asking questions, listening to the response)</li> </ul>	<p><b>≤59% of the time, the student can:</b></p> <ul style="list-style-type: none"> <li>Work together in a positive manner for a common purpose</li> <li>Compromise when needed to benefit the task</li> <li>Seek input from others to understand their point of view (e.g., taking turns, asking questions, listening to the response)</li> </ul>
<b>Follows rules and procedures</b>	<p><b>≥95% of the time, the student can follow:</b></p> <ul style="list-style-type: none"> <li>Directions the first time given</li> </ul>	<p><b>≥80% of the time, the student can follow:</b></p> <ul style="list-style-type: none"> <li>Directions the first time given</li> </ul>	<p><b>≥60% of the time, the student can follow:</b></p> <ul style="list-style-type: none"> <li>Directions the first time given</li> </ul>	<p><b>≤59% of the time, the student can follow:</b></p> <ul style="list-style-type: none"> <li>Directions the first time given</li> </ul>

## Learning Skills Rubric

Indicator	Consistently	Usually	Sometimes	Rarely
<b>Completes tasks on time</b>	<ul style="list-style-type: none"> <li>• <i>Class rules</i></li> <li>• <i>School rules</i></li> </ul> <p><b>≥95% of the time, the student can complete in a timely manner:</b></p> <ul style="list-style-type: none"> <li>• <i>Assignments</i></li> <li>• <i>Classroom activities</i></li> <li>• <i>Homework</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Class rules</i></li> <li>• <i>School rules</i></li> </ul> <p><b>≥80% of the time, the student can complete in a timely manner:</b></p> <ul style="list-style-type: none"> <li>• <i>Assignments</i></li> <li>• <i>Classroom activities</i></li> <li>• <i>Homework</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Class rules</i></li> <li>• <i>School rules</i></li> </ul> <p><b>≥60% of the time, the student can complete in a timely manner:</b></p> <ul style="list-style-type: none"> <li>• <i>Assignments</i></li> <li>• <i>Classroom activities</i></li> <li>• <i>Homework</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Class rules</i></li> <li>• <i>School rules</i></li> </ul> <p><b>≤59% of the time, the student/ can complete in a timely manner:</b></p> <ul style="list-style-type: none"> <li>• <i>Assignments</i></li> <li>• <i>Classroom activities</i></li> <li>• <i>Homework</i></li> </ul>
<b>Works well independently</b>	<p><b>≥95% of the time, I can:</b></p> <ul style="list-style-type: none"> <li>• <i>Self monitor for understanding.</i></li> <li>• <i>Ask for help when needed.</i></li> <li>• <i>Work on my own, undistracted</i></li> </ul>	<p><b>≥80% of the time, I can:</b></p> <ul style="list-style-type: none"> <li>• <i>Self monitor for understanding.</i></li> <li>• <i>Clarify assignment, if needed.</i></li> <li>• <i>Work on my own, undistracted</i></li> </ul>	<p><b>≥60% of the time, I can:</b></p> <ul style="list-style-type: none"> <li>• <i>Self monitor for understanding.</i></li> <li>• <i>Clarify assignment, if needed.</i></li> <li>• <i>Work on my own, undistracted</i></li> </ul>	<p><b>≤59% of the time, I can:</b></p> <ul style="list-style-type: none"> <li>• <i>Self monitor for understanding.</i></li> <li>• <i>Clarify assignment, if needed.</i></li> <li>• <i>Work on my own, undistracted</i></li> </ul>
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## Standards Based Reporting Teacher Resource Guide

There are a variety of resources available to elementary teachers to support Standards Based Grading. Each document provides ease in monitoring student achievement.

<p><b>Reading Street Standards Alignment Document:</b></p> <ul style="list-style-type: none"> <li>Alignment of report card standards with skill description for weekly and unit assessments</li> <li>Identifies the number of test questions used to assess the skill.</li> <li>Details the alignment of test question(s) with the skill and standard.</li> </ul>	<p style="text-align: center;"><b>Weekly Test Item Analysis—Grade 3</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>TEST</th> <th>SECTION</th> <th>ITEMS</th> <th>SKILL</th> <th>COMMON CORE STATE STANDARD</th> </tr> </thead> <tbody> <tr> <td rowspan="5" style="vertical-align: middle;">Weekly Test 9</td> <td>Vocabulary</td> <td>1–7</td> <td>Understand and use new vocabulary</td> <td>Language 4.a.</td> </tr> <tr> <td>Phonics</td> <td>8–12</td> <td>Consonant blends (<i>squ, spl, thr, str</i>)</td> <td>Foundational Skills 3.</td> </tr> <tr> <td rowspan="3">Comprehension</td> <td>13–15, 19, 20</td> <td>Ⓒ Author's purpose</td> <td>Informational Text 6.</td> </tr> <tr> <td>16, 18</td> <td>Fact and opinion, Generalize</td> <td>Informational Text 1.</td> </tr> <tr> <td>17</td> <td>Ⓓ Compare and contrast</td> <td>Informational Text 6.</td> </tr> <tr> <td>Written Response</td> <td>Look Back and Write</td> <td>Respond to literature</td> <td>Literature 3. (Also Literature 1., Writing 4., 5., 10., Language 1., 2.)</td> </tr> </tbody> </table>	TEST	SECTION	ITEMS	SKILL	COMMON CORE STATE STANDARD	Weekly Test 9	Vocabulary	1–7	Understand and use new vocabulary	Language 4.a.	Phonics	8–12	Consonant blends ( <i>squ, spl, thr, str</i> )	Foundational Skills 3.	Comprehension	13–15, 19, 20	Ⓒ Author's purpose	Informational Text 6.	16, 18	Fact and opinion, Generalize	Informational Text 1.	17	Ⓓ Compare and contrast	Informational Text 6.	Written Response	Look Back and Write	Respond to literature	Literature 3. (Also Literature 1., Writing 4., 5., 10., Language 1., 2.)																																																
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<p><b>Progressions ELA &amp; Math:</b></p> <ul style="list-style-type: none"> <li>Demonstrates the progression of specific standards over the course of the school year.</li> <li><b>Mark a 3</b> on the report card if the student is <b>on track</b> to master the skill and standard at this time. Mark 3* for early mastery.</li> </ul>	<p style="text-align: center;"><b>Numbers and Operations Base Ten</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Standard</th> <th>Term 1</th> <th>Term 2</th> <th>Term 3</th> </tr> </thead> <tbody> <tr> <td style="text-align: left;"><b>Fluently add within 1000</b> 3.NBT.2</td> <td>Fluently add within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</td> <td>Maintain mastery of Term 1 skills and standards.</td> <td>Maintain mastery of Term 1 and Term 2 skills and standards.</td> </tr> </tbody> </table>	Standard	Term 1	Term 2	Term 3	<b>Fluently add within 1000</b> 3.NBT.2	Fluently add within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	Maintain mastery of Term 1 skills and standards.	Maintain mastery of Term 1 and Term 2 skills and standards.																																																																				
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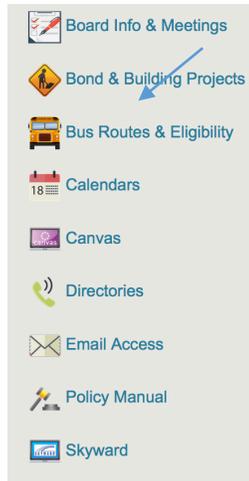
# Canvas Course Access Elementary Standards Based Grading

Log into Canvas: <https://canyons.instructure.com>

District Home Page:

Please request to be added to the course through your school Ed Tech or email [Monica.Lewis@canyonsdistrict.org](mailto:Monica.Lewis@canyonsdistrict.org)

Login: CSD email username and password



## Course Contents

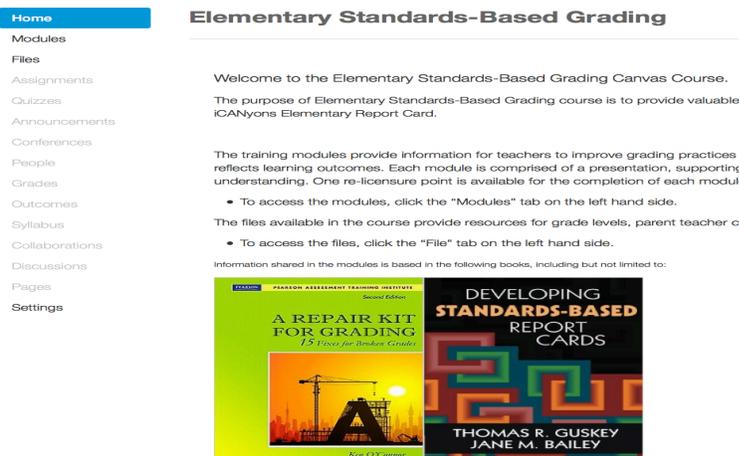
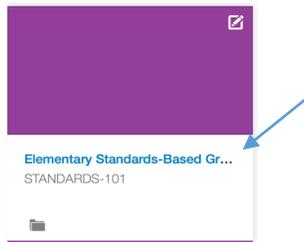
### Modules:

- Each module aligns with the *Repair Kit for Grading, 15 Fixes for Broken Grades*.
- Provides teachers with professional development to better understand standards based grading and practices.
- Assignments are aligned with each module ( optional). Upon completion 1 licensure point will be awarded.

### Files:

- **Grade Level Folders**
  - Report Card
  - Supporting documents for ELA/Math details the alignment of assessment question(s) with the skill and standard.
  - Document detailing how to mark report card.
- **Parent Teacher Conference Resources**
  - SEP agendas
- **Technology Supports**
  - Skyward guides
- **Special Education Documents**
- **Mastery Training Documents**

## Elementary Standards Based Grading Course



## 15 Fixes for Broken Grades

### Fixes that Distort Achievement

1. Don't include student behaviors in grades; include only achievement (effort, participation, adherence to class rules, etc.).
2. Don't reduce marks on "work" submitted late; provide support the learner.
3. Don't give points for extra credit or use bonus points; seek only evidence that more work has resulted in a higher level of achievement.
4. Don't punish academic dishonesty with reduced grades; apply other consequences and reassess to determine actual level of achievement.
5. Don't consider attendance in grade determination; report absences separately.
6. Don't include group scores in grades; use only individual achievement.

### Fixes for Low-Quality or Poorly Organized Evidence

7. Don't organize information in grading records by assessment methods or simply summarize into a single grade; organize and report evidence by standards/learning goals.
8. Don't assign grades using inappropriate or unclear performance standards; provide clear descriptions of achievement expectations.
9. Don't assign grades based on student's achievement compared to other students; compare each students' performance to present students.
10. Don't rely on evidence gathered using assessments that fail to meet standards of quality; rely only on quality assessments.

### Fixes for Inappropriate Grade Calculation

11. Don't rely only on the mean; consider other measures such as median or mode and use professional judgment.
12. Don't include zeros in grade determination when evidence is missing or as punishment; use alternatives, such as reassessing to determine real achievement or use "I" for Incomplete or Insufficient Evidence.

### Fixes to Support Learning

13. Don't use "checks for understanding" or practice (homework) to determine grades; use only evidence that demonstrates mastery.
14. Don't summarize evidence accumulated over time when learning is developmental and will grow with time and repeated opportunities; in those instances emphasize more recent achievement.
15. Don't leave students out of the grading process. Involve students; they can—and should—play key roles in assessment and grading that promote achievement.



### Guidelines for using the *hashtag* on the Report Card

- The only standards with a *hashtag* are those in which learning opportunities are **modified** for a student.
  - ✓ The standards should align with the student's IEP
- General Education and Special Education teachers must discuss the standards represented with the *hashtag*.
- Student achievement towards standards marked a **3-On Track at this Time** or **3M-Mastered** will not have a *hashtag*. Mastery of a standard is accomplished without curriculum modifications.
- Teachers should meet with parents to explain the use of the *hashtag* to ensure information communicated to the parents.
  - ✓ Explain the modification being made to the standard (i.e. different level of work, modified curriculum, modified standard).
  - ✓ The Special Education Teacher should provide connections to the IEP progress report.

Accommodation	Modification
Accommodations are: <ul style="list-style-type: none"><li>• adaptations in how a student accesses information and demonstrates learning</li><li>• provided to give students equal access to learning opportunities to demonstrate knowledge</li></ul>	Modifications are: <ul style="list-style-type: none"><li>• adaptations to a curriculum that may alter the grade-level expectations, but does not alter content standards.</li><li>• changes to instructional level, performance criteria, and/or curriculum.</li></ul>
Example: A student is provided extended time to complete assignments or assessments.	Example: A third grade student receives reading instruction on a first grade reading level.

## 3<sup>rd</sup> Grade I-CANyons Report Card Standards

### Speaking and Listening

- Engage effectively in conversations by coming prepared, following discussion rules, building upon other's ideas, and asking for clarification SL.3.1

### Reading Literature and Informational Texts:

- Ask and answer questions to demonstrate understanding referring to the text RL.3.1, RI.3.1, SL.3.3
- Identify the main idea and key details RL.3.2, RI.3.2, SL.3.2
- Recognize the structure (e.g., sequence, stanza, images) RL.3.3, RL.3.5, RL.3.7, RI.3.3, RI.3.5, RI.3.7
- Compare and contrast the author's and reader's point of view RL.3.6, RL.3.9, RI.3.6, RI.3.9

### Foundational Skills:

- Recognize and apply grade-level phonics in multisyllable words RF.3.3
- Read grade level text fluently with accuracy, appropriate rate, and expression to support comprehension RF.3.4, RL.3.10, RI.3.10

### Writing

- Write opinion pieces using organized reasons W.3.1
- Write informational texts to convey ideas with supporting details W.3.2, W.3.7
- Write narrative text to develop real or imagined experiences W.3.3
- Use technology to produce and publish writing W.3.6, W.3.8

### Language

- Use grammar skills when writing or speaking L.3.1, L.3.2
- Apply spelling patterns when writing L.3.2.e&f
- Use context clues, affixes, and roots to determine the meaning of vocabulary words and phrases L.3.4, R.L.3.4, R.I.3.4

### 3<sup>rd</sup> Grade SuccessNet Skill Alignment to the I-CANYons Report Card Standards

Category	I-CANYons Report Card Standard	SuccessNet Skill Alignment
Speaking and Listening	Engage effectively in conversations by coming prepared, following discussion rules, building upon other’s ideas, and asking for clarification SL.3.1	N/A
Reading Literature and Informational Texts	Ask and answer questions to demonstrate understanding referring to the text RL.3.1, RI.3.1, SL.3.3	<ul style="list-style-type: none"> <li>• Draw Conclusions</li> <li>• Fact and Opinion</li> <li>• Generalize</li> </ul>
	Identify the main idea and key details RL.3.2, RI.3.2, SL.3.2	<ul style="list-style-type: none"> <li>• Main Idea and Details</li> <li>• Theme</li> </ul>
	Recognize the structure (e.g., sequence, stanza, images) RL.3.3, RL.3.5, RL.3.7, RI.3.3, RI.3.5, RI.3.7	<ul style="list-style-type: none"> <li>• Cause and Effect</li> <li>• Character</li> <li>• Plot</li> <li>• Sequence of Events</li> <li>• Setting</li> <li>• Graphic Sources</li> </ul>
	Compare and contrast the author’s and reader’s point of view RL.3.6, RL.3.9, RI.3.6, RI.3.9	<ul style="list-style-type: none"> <li>• Author’s Purpose</li> <li>• Compare and Contrast</li> </ul>
Foundational Skills	Recognize and apply grade-level phonics in multisyllable words RF.3.3	<ul style="list-style-type: none"> <li>• Consonant Blends</li> <li>• Consonant Digraphs</li> <li>• Consonant Patterns</li> <li>• Vowels</li> <li>• Syllables</li> <li>• Schwa</li> <li>•</li> </ul>
	Read grade level text fluently with accuracy, appropriate rate, and expression to support comprehension RF.3.4, RL.3.10, RI.3.10	N/A
Writing	Write opinion pieces using organized reasons W.3.1	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Write informational texts to convey ideas with supporting details W.3.2, W.3.7	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Write narrative text to develop real or imagined experiences W.3.3	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Use technology to produce and publish writing W.3.6, W.3.8	<ul style="list-style-type: none"> <li>• N/A</li> </ul>

Language	Use grammar skills when writing or speaking L.3.1, L.3.2	<ul style="list-style-type: none"> <li>• Adjectives</li> <li>• Articles</li> <li>• Capitalization</li> <li>• Sentences</li> <li>• Conjunctions</li> <li>• Nouns</li> <li>• Prepositions</li> <li>• Pronouns</li> <li>• Commas</li> <li>• Subject-Verb Agreement</li> <li>• Subjects and Predicates</li> <li>• Past, Present &amp; Future Tense</li> </ul>
	Apply spelling patterns when writing L.3.2.e&f	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
	Use context clues, affixes, and roots to determine the meaning of vocabulary words and phrases L.3.4, R.L.3.4, R.I.3.4	<ul style="list-style-type: none"> <li>• Contractions</li> <li>• Homophones</li> <li>• Plurals</li> <li>• Prefixes</li> <li>• Suffixes</li> <li>• Related Words</li> <li>• Compound Words</li> <li>• Homonyms</li> <li>• Synonyms</li> <li>• Words, Unknown</li> <li>• Words, Unfamiliar</li> <li>• Words, Multiple Meaning</li> </ul>

## 3<sup>rd</sup> Grade ELA Progression

**Mark a 3 on the report card  
for the given term if the student shows mastery of the listed skills and standards.**

<b>Speaking and Listening</b>			
<b>Standard</b>	<b>Term 1</b>	<b>Term 2 Assess standards below while maintaining Term 1 skills and standards</b>	<b>Term 3 Assess standards below while maintaining Term 1 &amp; 2 skills and standards</b>
<b>Engage effectively in conversations by following discussion rules, building upon other's ideas, and asking for clarification.</b>  SL.3.1	<ul style="list-style-type: none"><li>• Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.</li><li>• Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</li></ul>	<ul style="list-style-type: none"><li>• Explain their own ideas and understanding in light of the discussion.</li></ul>	<ul style="list-style-type: none"><li>• Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</li></ul>

## Reading Literature and Informational Skills

Standard	Term 1	Term 2 Assess standards below while maintaining Term 1 skills and standards	Term 3 Assess standards below while maintaining Term 1 & 2 skills and standards
<p><b>Ask and answer questions to demonstrate understanding referring to the text</b></p> <p>RL.3.1, RI.3.1, SL.3.3</p>	<p>To determine mastery on the reading literature and informational text standards, consider the amount of scaffolding the student requires.</p> <ul style="list-style-type: none"> <li>• If a student requires significant teacher and/or peer support to read and comprehend a grade-level text within the appropriate text complexity band, then the student would achieve a 1.</li> <li>• If a student is inconsistent in their skills and at times requires teacher or peer prompting or support at to read and comprehend a grade-level text within the appropriate text complexity band, then the student would achieve a 2.</li> <li>• If a student is able to read and comprehend grade-level text within the appropriate text complexity band and requires no support to do so, then the student would achieve a 3.</li> </ul>		
<p><b>Identify the main idea and key details</b></p> <p>RL.3.2, RI.3.2, SL.3.2</p>			
<p><b>Recognize the structure (e.g., sequence, stanza, images).</b></p> <p>RL.3.3, RL.3.5, RL.3.7, RI.3.3, RI.3.5, RI.3.7</p>			

**Compare and contrast the author's and reader's point of view**

RL.3.6, RL.3.9, RI.3.6, RI.3.9

## Foundational Skills

Standard	Term 1	Term 2 Assess standards below while maintaining Term 1 skills and standards	Term 3 Assess standards below while maintaining Term 1 & 2 skills and standards
<p><b>Recognize and apply grade-level phonics in multisyllable words</b></p> <p>RF.3.3</p>	<p>Read words involving:</p> <ul style="list-style-type: none"> <li>• Syllable Patterns: VCCV, V/CV, VCV</li> <li>• Inflected Endings</li> <li>• Long Vowel Digraphs</li> <li>• Compound Words</li> <li>• Three-Letter Blends</li> <li>• Digraphs</li> </ul>	<p>Read words involving ALL of Term 1, plus:</p> <ul style="list-style-type: none"> <li>• Contractions</li> <li>• Silent Consonants (e.g. wr, kn)</li> <li>• Plurals</li> <li>• R-Controlled Vowels</li> <li>• Syllable Pattern VCCCV</li> </ul>	<p>Read words involving ALL of Term 1 &amp; 2, plus:</p> <ul style="list-style-type: none"> <li>• Syllable Pattern CVVC</li> <li>• Advanced Vowel Sounds (e.g. –all, eigh)</li> <li>• Suffixes</li> <li>• Prefixes</li> </ul>
<p><b>Read grade level text fluently with accuracy, appropriate rate, and expression to support comprehension.</b></p> <p>RF.3.4, RL.3.10, RI.3.10</p>	<p>Read grade level text fluently with accuracy, rate of 77 wcpm, and expression to support comprehension.</p>	<p>Read grade level text fluently with accuracy, rate of 105 wcpm, and expression to support comprehension.</p>	<p>Read grade level text fluently with accuracy, rate of 119 wcpm, and expression to support comprehension.</p>

## Writing

Standard	Term 1	Term 2 Assess standards below while maintaining Term 1 skills and standards	Term 3 Assess standards below while maintaining Term 1 & 2 skills and standards
<p><b>Write opinion pieces using organized reasons.</b></p> <p>W.3.1</p>	<p>Student can do <b>2</b> of the following:</p> <ul style="list-style-type: none"> <li>• Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.</li> <li>• Provide reasons that support the opinion.</li> <li>• Use linking words and phrases (e.g., <i>because, therefore, since, for example</i>) to connect opinion and reasons.</li> <li>• Provide a concluding statement or section.</li> </ul>	<p>N/A</p>	<p>Student can do <b>ALL</b> of the following:</p> <ul style="list-style-type: none"> <li>• Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.</li> <li>• Provide reasons that support the opinion.</li> <li>• Use linking words and phrases (e.g., <i>because, therefore, since, for example</i>) to connect opinion and reasons. Provide a concluding statement or section.</li> </ul>
<p><b>Write informational texts to convey ideas with supporting details.</b></p> <p>W.3.2</p>	<p>N/A</p>	<p>Students can do <b>2</b> of the following:</p> <ul style="list-style-type: none"> <li>• Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</li> </ul>	<p>Students can do <b>ALL</b> of the following:</p> <ul style="list-style-type: none"> <li>• Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</li> </ul>

		<ul style="list-style-type: none"> <li>• Develop the topic with facts, definitions, and details.</li> <li>• Use linking words and phrases (e.g., <i>also, another, and, more, but</i>) to connect ideas within categories of information.</li> <li>• Provide a concluding statement or section.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop the topic with facts, definitions, and details.</li> <li>• Use linking words and phrases (e.g., <i>also, another, and, more, but</i>) to connect ideas within categories of information.</li> </ul> <p>Provide a concluding statement or section.</p>
<p><b>Write narrative text to develop real or imagined experiences.</b></p> <p>W.3.3</p>	<p>Students can do <b>2</b> of the following:</p> <ul style="list-style-type: none"> <li>• Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.</li> <li>• Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.</li> <li>• Use temporal words and phrases to signal event order.</li> <li>• Provide a sense of closure.</li> </ul>	<p>Students can do <b>ALL</b> of the following:</p> <ul style="list-style-type: none"> <li>• Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.</li> <li>• Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.</li> <li>• Use temporal words and phrases to signal event order.</li> <li>• Provide a sense of closure.</li> </ul>	N/A

## Language

Standard	Term 1	Term 2 Assess standards below while maintaining Term 1 skills and standards	Term 3 Assess standards below while maintaining Term 1 & 2 skills and standards
<p><b>Use grammar skills when writing or speaking.</b></p> <p>L.3.1, L.3.2</p>	<ul style="list-style-type: none"> <li>Explain the function of nouns, pronouns, verbs adjective, and adverbs in general and their functions in particular sentence.</li> <li>Form and use regular and irregular plural nouns.</li> <li>Use abstract nouns.</li> <li>Form and use possessives.</li> </ul>	<ul style="list-style-type: none"> <li>Form and use regular and irregular verbs</li> <li>Form and use the simple (e.g., I walked; I walk; I will walk) verb tenses.</li> <li>Ensure subject-verb and pronoun-antecedent agreement*</li> <li>Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</li> </ul>	<ul style="list-style-type: none"> <li>Independently and legibly write all upper-and lowercase cursive letters.</li> <li>Produce grade-appropriate text using legible cursive writing.</li> <li>Use comparative and superlative adjectives and adverbs and choose between them depending on what is to be modified.</li> <li>Use coordinating and subordinating conjunctions.</li> <li>Produce simple, compound and complex sentences.</li> <li>Capitalize appropriate words in titles.</li> <li>Use commas in addresses.</li> <li>Use commas and quotation marks in dialogue.</li> </ul>
<p><b>Apply spelling patterns when writing.</b></p> <p>L.3.2.e &amp; f</p>	<p>For spelling patterns taught so far:</p> <ul style="list-style-type: none"> <li>Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns ending rule, meaningful word</li> </ul>	<p>For spelling patterns taught so far:</p> <ul style="list-style-type: none"> <li>Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns ending rule, meaningful word</li> </ul>	<ul style="list-style-type: none"> <li>Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns ending rule, meaningful word parts) in writing words</li> </ul>

	<p>parts) in writing words</p> <ul style="list-style-type: none"> <li>• Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words</li> </ul>	<p>parts) in writing words</p> <ul style="list-style-type: none"> <li>• Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words</li> </ul>	<ul style="list-style-type: none"> <li>• Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words</li> </ul>
<p><b>Use context clues, affixes, and roots to determine the meaning of vocabulary words and phrases.</b></p> <p>L.3.4, R.L.3.4, R.I.3.4</p>	<ul style="list-style-type: none"> <li>• Use sentence-level context as a clue to the meaning of a word or phrase.</li> </ul>	<ul style="list-style-type: none"> <li>• Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., <i>company</i>, <i>companion</i>).</li> </ul>	<ul style="list-style-type: none"> <li>• Determine the meaning of the new word formed when a known affix is added to a known word (e.g., <i>agreeable/disagreeable</i>, <i>comfortable/uncomfortable</i>, <i>care/careless</i>, <i>heat/preheat</i>).</li> <li>• Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.</li> </ul>

## **Grade 3**

### **Operations and Algebraic Thinking**

- Understand and represent multiplication 3.OA.1,3,4,5 3.NBT.3
- Understand and represent division 3.OA.2-6
- Fluently multiply two one-digit numbers within 100 3.OA.7
- Fluently divide two one-digit numbers within 100 3.OA.7
- Solve two-step word problems using addition and subtraction 3.OA.8 & 9
- Solve two-step word problems using multiplication and division 3.OA.8 & 9

### **Numbers and Operations Base Ten**

- Fluently add within 1000 3.NBT.2
- Fluently subtract within 1000 3.NBT.2
- Multiply numbers by multiples of 10 3.NBT.3

### **Numbers and Operations – Fractions**

- Understand and represent that a fraction is part of a whole 3.NF.1
- Understand and represent fractions on a number line 3.NF.2
- Understand equivalent fractions 3.NF.3
- Compare fractions 3.NF.3

### **Measurement and Data**

- Solve problems involving time intervals to the nearest minute 3.MD.1
- Solve problems involving volume and mass 3.MD.2
- Generate, represent, and interpret data using scaled graphs and line plots 3.MD.3&4
- Understand and apply area and perimeter 3.MD.5-8

### **Geometry**

- Understand quadrilaterals and their attributes 3.G.1
- Divide shapes into equal areas 3.G.2

### 3<sup>rd</sup> Grade Math Progression

Mark a 3 on the report card

for the given term if the student shows mastery of the listed skills and standards.

Operations and Algebraic Thinking			
Standard	Term 1	Term 2	Term 3
<p><b>Understand and represent multiplication</b></p> <p>3.OA.1,3,4,5 3.NBT.3</p>	<ul style="list-style-type: none"> <li>Interpret products of whole numbers, e.g., interpret <math>5 \times 7</math> as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as <math>5 \times 7</math>.</i></li> <li>Use multiplication within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</li> <li>Determine the unknown whole number in a multiplication equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of</i></li> </ul>	<ul style="list-style-type: none"> <li>Apply distributive property of operations as strategies to multiply. <i>2 Example: Knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, one can find <math>8 \times 7</math> as <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56</math>. (Distributive property.)</i></li> </ul>	<ul style="list-style-type: none"> <li>Maintain mastery of Term 1 and Term 2 skills and standards.</li> </ul>

	<p><i>the equations <math>8 \times ? = 48</math>.</i></p> <ul style="list-style-type: none"> <li>• Apply properties of operations as strategies to multiply. <i>2 Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known. (Commutative property of multiplication.) <math>3 \times 5 \times 2</math> can be found by <math>3 \times 5 = 15</math>, then <math>15 \times 2 = 30</math>, or by <math>5 \times 2 = 10</math>, then <math>3 \times 10 = 30</math>. (Associative property of multiplication.)</i></li> <li>• Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., <math>9 \times 80</math>, <math>5 \times 60</math>) using strategies based on place value and properties of operations.</li> </ul>		
<p><b>Understand and represent division</b></p> <p>3.OA.2-6</p>	<ul style="list-style-type: none"> <li>• Interpret whole-number quotients of whole numbers, e.g., interpret <math>56 \div 8</math> as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. <i>For example, describe a context in which a number of shares or a number of groups can be expressed as <math>56 \div 8</math>.</i></li> <li>• Use division within 100 to solve word problems in</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain mastery of Term 1 &amp; 2 skills and standards</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain mastery of Term 1 &amp; 2 skills and standards.</li> </ul>

	<p>situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.<sup>1</sup></p> <ul style="list-style-type: none"> <li>• Determine the unknown whole number in a multiplication or division equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations <math>8 \times ? = 48</math>, <math>5 = \_ \div 3</math>, <math>6 \times 6 = ?</math></i></li> </ul> <p>Understand properties of multiplication and the relationship between multiplication and division.</p> <ul style="list-style-type: none"> <li>• Apply properties of operations as strategies to multiply and divide.<sup>2</sup> <i>Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known. (Commutative property of multiplication.) <math>3 \times 5 \times 2</math> can be found by <math>3 \times 5 = 15</math>, then <math>15 \times 2 = 30</math>, or by <math>5 \times 2 = 10</math>, then <math>3 \times 10 = 30</math>. (Associative property of</i></li> </ul>		
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	<p><i>multiplication.) Knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, one can find <math>8 \times 7</math> as <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56</math>. (Distributive property.)</i></p> <ul style="list-style-type: none"> <li>Understand division as an unknown-factor problem. For example, find <math>32 \div 8</math> by finding the number that makes 32 when multiplied by 8.</li> </ul>		
<p><b>Fluently multiply two one-digit numbers within 100</b></p> <p>3.OA.7</p>	<ul style="list-style-type: none"> <li>Fluently multiply within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations</li> </ul>	<ul style="list-style-type: none"> <li>Maintain mastery of Term 1 Skills</li> </ul>	<ul style="list-style-type: none"> <li>Fluently multiply within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</li> </ul>
<p><b>Fluently divide two one-digit numbers within 100</b></p> <p>3.OA.7</p>	<ul style="list-style-type: none"> <li>Fluently divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain mastery of Term 2 skills and standards</li> </ul>	<ul style="list-style-type: none"> <li>Maintain mastery of Term 2 skills and standards.</li> </ul>
<p><b>Solve two-step word problems using addition and</b></p>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>Solve two-step word problems using addition and subtraction. Represent these problems</li> </ul>

<p><b>subtraction</b></p> <p>3.OA.8 &amp; 9</p>			<p>using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p>
<p><b>Solve two-step word problems using multiplication and division</b></p> <p>3.OA.8 &amp; 9</p>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• Solve two-step word problems using the multiplication and division. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</li> <li>•</li> </ul>

## Numbers and Operations Base Ten

Standard	Term 1	Term 2	Term 3
<p><b>Fluently add within 1000</b></p> <p>3.NBT.2</p>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>Fluently add within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain mastery of Term 2 skills and standards.</li> </ul>
<p><b>Fluently subtract within 1000</b></p> <p>3.NBT.2</p>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>Fluently subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain mastery of Term 2 skills and standards.</li> </ul>
<p><b>Multiply numbers by multiples of 10</b></p> <p>3.NBT.3</p>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., <math>9 \times 80</math>, <math>5 \times 60</math>) using strategies based on place value and properties of operations.</li> </ul>

## Numbers and Operations - Fractions

Standard	Term 1	Term 2	Term 3
<p><b>Understand and represent that a fraction is part of a whole</b></p> <p>3.NF.1</p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• Understand a fraction <math>1/b</math> as the quantity formed by 1 part when a whole is partitioned into <math>b</math> equal parts; understand a fraction <math>a/b</math> as the quantity formed by <math>a</math> parts of size <math>1/b</math>.</li> </ul>
<p><b>Understand and represent fractions on a number line</b></p> <p>3.NF.2</p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• Understand a fraction as a number on the number line; represent fractions on a number line diagram.               <ol style="list-style-type: none"> <li>a. Represent a fraction <math>1/b</math> on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into <math>b</math> equal parts. Recognize that each part has size</li> </ol> </li> </ul>

			<p><math>1/b</math> and that the endpoint of the part based at 0 locates the number <math>1/b</math> on the number line.</p> <ul style="list-style-type: none"> <li>• Represent a fraction <math>a/b</math> on a number line diagram by marking off a lengths <math>1/b</math> from 0. Recognize that the resulting interval has size <math>a/b</math> and that its endpoint locates the number <math>a/b</math> on the number line.</li> </ul>
<p><b>Understand equivalent fractions</b></p> <p>3.NF.3</p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<p>Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <ol style="list-style-type: none"> <li>Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.</li> <li>Recognize and generate simple equivalent fractions, e.g., <math>1/2 = 2/4</math>, <math>4/6 = 2/3</math>. Explain why the fractions are equivalent, e.g., by using a visual fraction model.</li> </ol>

			<p>c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. <i>Examples: Express 3 in the form <math>3 = 3/1</math>; recognize that <math>6/1 = 6</math>; locate <math>4/4</math> and 1 at the same point of a number line diagram.</i></p>
<p><b>Compare fractions</b></p> <p>3.NF.3</p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the conclusions, e.g., by using a visual fraction model.</li> </ul>

## Measurement and Data

Standard	Term 1	Term 2	Term 3
<p><b>Solve problems involving time intervals to the nearest minute</b></p> <p>3.MD.1</p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.</li> </ul>
<p><b>Solve problems involving volume and mass</b></p> <p>3.MD.2</p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).1 Add, subtract, multiply, or divide to</li> </ul>

			<p>solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.</p>
<p><b>Generate, represent, and interpret data using scaled graphs and line plots</b></p> <p>3.MD.3&amp;4</p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<p>Represent and interpret data.</p> <ul style="list-style-type: none"> <li>• Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. <i>For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</i></li> <li>• Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain mastery of Term 2 Skills and Standards</li> </ul>
<p><b>Understand and apply area and perimeter</b></p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize area as an attribute of plane figures and understand concepts of area measurement.</li> </ul>

<p>3.MD.5-8</p>			<p>a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.</p> <p>b. A plane figure which can be covered without gaps or overlaps by <math>n</math> unit squares is said to have an area of <math>n</math> square units.</p> <ul style="list-style-type: none"> <li>• Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).</li> <li>• Relate area to the operations of multiplication and addition. <ul style="list-style-type: none"> <li>a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.</li> <li>b. Multiply side</li> </ul> </li> </ul>
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			<p>lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.</p> <p>c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths <math>a</math> and <math>b + c</math> is the sum of <math>a \times b</math> and <math>a \times c</math>. Use area models to represent the distributive property in mathematical reasoning.</p> <p>d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this</p>
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			<p>technique to solve real world problems.</p> <ul style="list-style-type: none"><li>• Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.</li></ul>
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## Geometry

Standard	Term 1	Term 2	Term 3
<p><b>Understand quadrilaterals and their attributes</b></p> <p>3.G.1</p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.</li> </ul>
<p><b>Divide shapes into equal areas</b></p> <p>3.G.2</p>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.</i></li> </ul>