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GUAM District Level Curriculum Alignment

Grade 3 – ELA

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
3.RL.1	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	3.2.2 Ask questions and support answers by connecting prior knowledge with literal information from the text.	Partial: Ask and answer questions (3.2.2) pertains to informational text. CCSS is referring to literary text.	-Determine explicit supporting details -Determine explicit action or sequence	#15–16 Ask and answer questions
3.RL.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.	3.3.1 Distinguish among common forms of literature. 3.3.2 Comprehend basic plots of a variety of literary text from around the world. 3.3.4 Determine the theme in literary text.	Partial: requires three GDOE standards to reach the CCSS depth.	-Determine explicit action or sequence -Determine explicit supporting details -Extract implied theme or main idea -Identify characteristics of genre	3.3.1: #17–20 Genre forms 3.3.2: #49–51 Story elements 3.3.4: #52 Message
3.RL.3	Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.	3.3.3 Determine what characters are like by what they say or do and by how the author or illustrator portrays them.	Partial: the CCSS has more depth with describing how character actions contribute to the sequence of events.	-Interpret character traits, motivation, or behavior -Determine explicit action or sequence	N/A

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
3.RL.4	Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.	<p>3.1.5 Use sentence and word context to find the meaning of unknown words.</p> <p>4.3.4 Define figurative language, such as similes, metaphors, hyperbole, or personification, and identify its use in literary works.</p> <ul style="list-style-type: none"> • Simile: a comparison that uses like or as • Metaphor: an implied comparison • Hyperbole: an exaggeration for effect • Personification: a description that represents a thing as a person 	Partial: 3rd grade standards do not specify distinguishing literal from nonliteral language. An alignment would also require the 4th grade skill.	-Determine unknown words from context	3.1.5: #5–8; 58 Context clues
3.RL.5	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.	<p>3.2.1 Use titles, tables of contents, chapter headings, a glossary, or an index to locate information in text.</p> <p>5.3.1 Identify and analyze the characteristics of poetry, drama, fiction, and nonfiction as literary forms chosen by an author for a specific purpose.</p>	3rd grade standards do not specify referring to structures of narrative text. Alignment would also require the 5th grade skill.	-Identify characteristics of genre	3.2.1: #41–44 Locating information
3.RL.6	Distinguish their own point of view from that of the narrator or those of the characters.	<p>3.3.6 Identify the speaker or narrator in a selection.</p> <p>3.3.7 Critique an aspect of the story (characters, plotline, resolution, setting).</p>	Partial: the GDOE standards do not require distinguishing points of views.	N/A	3.3.7: #53–57 Problem/solution
3.RL.7	Explain how specific aspects of a text’s illustrations contribute to what is conveyed by the words	3.3.3 Determine what characters are like by what they say or do and by how the author or illustrator portrays	Aligned	N/A	N/A

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	in a story (e.g., create mood, emphasize aspects of a character or setting).	them.			
3.RL.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).	2.3.2 Compare similarities and differences of the plot, setting, and characters of two stories.	Partial: 3rd grade does not include comparing and/or contrasting themes, settings, plots written by the same author about the same or similar characters.	-Interpret character traits, motivation, or behavior -Determine explicit action or sequence -Extract implicit theme or message	N/A
3.RL.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.	3.1.2 Read aloud grade level appropriate literary and informational texts fluently and accurately and with appropriate timing, change in voice, and expression. 3.3.1 Distinguish among common forms of literature (poetry, drama, fiction, nonfiction). 3.3.2 Comprehend basic plots (series of events, complication/conflict, resolution—how things work out) of a variety of literary texts (classic fairy tales, myths, folktales, legends, and fables) from around the world. 3.8.1 Work with a partner or small group as authors and readers of a text and share various interpretations of the text.	Partial: Aligned using multiple GDOE standards. Also see complexity of text used in CCSS Appendix B examples.	N/A	N/A
3.RI.1	Ask and answer questions to	3.2.2 Ask questions and support	Aligned	-Determine explicit	3.2.2: #15–16

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	answers by connecting prior knowledge with literal information from the text.		supporting details -Determine explicit action or sequence	Ask and answer questions
3.RI.2	Determine the main idea of a text; recount the key details and explain how they support the main idea.	3.2.2 Ask questions and support answers by connecting prior knowledge with literal information from the text. 3.2.3 Show understanding by identifying answers in the text. 3.2.5 Locate and distinguish information from the text, including problems and solutions, main idea, and supporting details.	Partial: Aligned using 3 GDOE standards.	-Determine explicit supporting details -Determine explicit action or sequence -Determine problems and solutions in text -Distinguish important from less-important ideas	3.2.2: #15–16 Ask and answer questions
3.RI.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.	3.2.5 Locate and distinguish information from the text, including problems and solutions, main idea, and supporting details. 3.2.6 Summarize a text using key words (signal words that alert the reader to a sequence of events, such as <i>before, first, during, while, as, at the same time, after, then, next, at last, finally, now, and when</i> or cause and effect, such as <i>because, since, therefore, and so</i>).	Partial: Using a mix of grade level GDOE standards. The GDOE does not specify relationship such as historical events, scientific ideas, or technical procedures.	-Analyze text structure to reading task -Form hypothesis from ideas in the text -Determine explicit causes or effects for events	N/A
3.RI.4	Determine the meaning of general academic and domain-specific words and phrases in a	3.1.4 Demonstrate knowledge of levels of specificity among grade appropriate words.	Partial: Aligned using 2 grade level GDOE standards.	-Determine unknown words from context	3.1.5: #5–8; 58 Context clues

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	text relevant to a grade 3 topic or subject area.	3.1.5 Use sentence and word context to find the meaning of unknown words.			
3.RI.5	Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.	3.2.1 Use titles, tables of contents, chapter headings, a glossary, or an index to locate information in text. 3.7.1 Use various reference materials (such as a dictionary, thesaurus, atlas, encyclopedia, and online resources).	Partial: Aligned using two grade level GDOE standards.	N/A	3.2.1: #41–44 Locating information 3.7.1: #37–40 Reference materials
3.RI.6	Distinguish their own point of view from that of the author of a text.	3.3.6 Identify the speaker or narrator in a selection. 3.6.2 Connect and relate experiences and ideas to those of a speaker.	Partial: 3rd grade does not distinguish the reader's point of view from that of the author in informational text.	N/A	3.3.6: #59 Identify speaker
3.RI.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).	3.2.5 Locate and distinguish information from the text, including problems and solutions, main idea, and supporting details. 4.2.4 Make and confirm predictions and/or hypotheses (statements of theories or assumptions) about text by using prior knowledge and ideas presented in the text itself, including illustrations, titles, topic sentences, important words, foreshadowing clues (clues that indicate what might happen next), and direct quotations.	Partial: Would also require GDOE grade 4 skills.	-Make predictions based on text -Analyze text structure to reading task -Determine explicit supporting details	N/A
3.RI.8	Describe the logical connection between particular sentences and paragraphs in a text (e.g.,	3.2.5 Locate and distinguish information from the text, including problems and solutions, main idea,	Partial: aligned using two grade level GDOE standards.	-Determine explicit cause or effects for events	N/A

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	comparison, cause/effect, first/second/third in a sequence).	and supporting details. 3.2.6 Summarize a text using key words (signal words that alert the reader to a sequence of events, such as <i>before, first, during, while, as, at the same time, after, then, next, at last, finally, now</i> , and <i>when</i> or cause and effect, such as <i>because, since, therefore, and so</i>).		-Determine explicit action or sequence	
3.RI.9	Compare and contrast the most important points and key details presented in two texts on the same topic.	3.2.4 Recall major points in the text and make and revise predictions about what is read. 4.2.5 Compare and contrast information on the same topic after reading several texts.	3rd grade does not specify comparing and contrasting key points or details from 2 texts on the same topic. An alignment would also require grade 4 skill.	-Determine explicit supporting details -Distinguish important from less-important ideas -Analyze author's purpose, assumptions, viewpoints	3.2.4: #45–48 Summarizing details
3.RI.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.	3.1.2 Read aloud grade level appropriate literary and informational texts fluently and accurately and with appropriate timing, change in voice, and expression. 3.8.1 Work with a partner or small group as authors and readers of a text and share various interpretations of the text.	Partial: See complexity of text in the CCSS Appendix B examples.	N/A	N/A
3.RF.3a	Know and apply grade-level phonics and word analysis skills	3.1.7 Use knowledge of prefixes (word parts added at the beginning of	Aligned	-Word study skills: structural analysis	3.1.7: #9–11 Word

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	in decoding words: Identify and know the meaning of the most common prefixes and derivational suffixes.	words, such as <i>un-</i> , <i>pre</i>) and suffixes (word parts added at the end of words, such as <i>-er</i> , <i>-ful</i> , <i>-less</i>) to determine the meaning of words.			meanings
3.RF.3b	Know and apply grade-level phonics and word analysis skills in decoding words: Decode words with common Latin suffixes.	3.1.7 Use knowledge of prefixes (word parts added at the beginning of words, such as <i>un-</i> , <i>pre</i>) and suffixes (word parts added at the end of words, such as <i>-er</i> , <i>-ful</i> , <i>-less</i>) to determine the meaning of words. 4.1.2 Use knowledge of root words (<i>nation</i> , <i>national</i> , <i>nationality</i>) and word parts to determine the maining of unknown words within a passage. 5.1.3 Know less common roots (<i>graph</i> = <i>writing</i> , <i>logos</i> = <i>the study of</i>) and word parts (<i>auto</i> = <i>self</i> , <i>bio</i> = <i>life</i>) from Greek and Latin and use this knowledge to analyze the meaning of complex words (<i>autograph</i> , <i>autobiography</i> , <i>biography</i> , <i>biology</i>).	Partial: 3rd grade does not include Latin suffixes, while 4th and 5th grade refer to Latin roots.	-Word study skills: structural analysis	3.1.7: #9–11 Word meanings
3.RF.3c	Know and apply grade-level phonics and word analysis skills in decoding words: Decode multisyllable words.	3.1.1 Read words with several syllables.	Aligned	-Word study skills: structural analysis	N/A
3.RF.3d	Know and apply grade-level phonics and word analysis skills in decoding words: Read grade-appropriate irregularly spelled words.	2.14 Identify and correctly use regular plural words (<i>mountain/mountains</i>) and irregular plural words (<i>child/children</i> , <i>mouse/mice</i>). 4.5.5 Spell correctly roots (bases of	Partial: 3rd grade does not specify irregularly spelled words.	-Spelling: sight words	N/A

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
		words, such as <i>unnecessary</i> , <i>cowardly</i>), inflections (words like <i>care/careful/caring</i>), words with more than one acceptable spelling (like <i>advisor/adviser</i>), suffixes and prefixes (-ly, -ness, mis-, un-), and syllables (word parts each containing a vowel sound, such as <i>sur•prise</i> or <i>e•col•o•gy</i>).			
3.RF.4a	Read with sufficient accuracy and fluency to support comprehension: Read on-level text with purpose and understanding.	3.1.2 Read aloud grade level appropriate literary and informational texts fluently and accurately and with appropriate timing, change in voice, and expression.	Aligned	N/A	N/A
3.RF.4b	Read with sufficient accuracy and fluency to support comprehension: Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.	3.1.2 Read aloud grade level appropriate literary and informational texts fluently and accurately and with appropriate timing, change in voice, and expression.	Aligned	N/A	N/A
3.RF.4c	Read with sufficient accuracy and fluency to support comprehension: Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	3.1.3 Determine the meanings of words using knowledge of synonyms (words with the same meaning), antonyms (words with opposite meanings), homophones (words that sound the same but have different meanings and spellings), and homographs (words that are spelled the same but have different	Partial: Aligned using two grade level GDOE standards.	-Determine unknown words from context	3.1.3: #1–4 Word meanings 3.1.5: #5–8; 58 Context clues

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
		meanings). 3.1.5 Use sentence and word context to find the meaning of unknown words.			
3.W.1a	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.	3.4.5 Write persuasive pieces that ask for an action or response. 4.4.3 Write for different purposes (information, persuasion, description) and to a specific audience or person.	3rd grade does not specify elements of argumentative writing, although it may be inferred with persuasive writing instruction. Would require grade 4 skills.	-Determine purpose for writing -Determine an appropriate supporting sentence -Determine appropriate topic sentence -Organize information	N/A
3.W.1b	Write opinion pieces on topics or texts, supporting a point of view with reasons: Provide reasons that support the opinion.	3.4.5 Write persuasive pieces that ask for an action or response. 4.4.3 Write for different purposes (information, persuasion, description) and to a specific audience or person.	3rd grade does not specify elements of argumentative writing, although it may be inferred with persuasive writing instruction. Would require grade 4 skills.	-Determine purpose for writing -Determine an appropriate supporting sentence	N/A
3.W.1c	Write opinion pieces on topics or texts, supporting a point of view with reasons: Use linking words and phrases (e.g., <i>because, therefore, since, for example</i>) to connect opinion and reasons.	3.4.5 Write persuasive pieces that ask for an action or response. 4.4.3 Write for different purposes (information, persuasion, description) and to a specific audience or person.	Partial: Though it is still with a possible alignment to persuasive writing, no GDOE standard specifies using linking words to connect	-Determine purpose for writing -Identify correctly and effectively written sentences	N/A

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
			writing.		
3.W.1d	Write opinion pieces on topics or texts, supporting a point of view with reasons: Provide a concluding statement or section.	3.4.2 Create single paragraphs with topic sentences and simple supporting facts and details, using varied word choices to make writing interesting. 3.4.5 Write persuasive pieces that ask for an action or response.	Partial: 3rd grade standards do not specify providing a concluding statement in an opinion piece, but may be inferred in writing a persuasive piece (3.4.5).	-Determine purpose for writing	N/A
3.W.2a	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.	4.4.2 Create multiple paragraph expository texts that: <ul style="list-style-type: none"> • Provide an introductory paragraph. • Establish and support a central idea with a topic sentence at or near the beginning of the first paragraph. • Include supporting paragraphs with simple facts, details, and explanations. • Present important ideas or events in sequence or in chronological order. • Provide details and transitions to link paragraphs. • Conclude with a paragraph that summarizes the points. • Use correct indentation at the beginning of paragraphs. • Use varied word choices to make writing interesting. 	Partial: Requires a grade 4 standard involving writing expository texts.	-Determine purpose for writing -Organize information -Determine appropriate topic sentence	N/A
3.W.2b	Write informative/explanatory texts to examine a topic and convey ideas and information	4.4.2 Create multiple paragraph expository texts that: <ul style="list-style-type: none"> • Provide an introductory paragraph. 	Partial: Requires a grade 4 standard involving writing	-Determine purpose for writing -Determine	N/A

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	clearly: Develop the topic with facts, definitions, and details.	<ul style="list-style-type: none"> Establish and support a central idea with a topic sentence at or near the beginning of the first paragraph. Include supporting paragraphs with simple facts, details, and explanations. Present important ideas or events in sequence or in chronological order. Provide details and transitions to link paragraphs. Conclude with a paragraph that summarizes the points. Use correct indentation at the beginning of paragraphs. Use varied word choices to make writing interesting. 	expository texts.	extraneous information -Determine topic relevance	
3.W.2c	Write informative/explanatory texts to examine a topic and convey ideas and information clearly: Use linking words and phrases (e.g., <i>also, another, and, more, but</i>) to connect ideas within categories of information.	4.4.2 Create multiple paragraph expository texts that: <ul style="list-style-type: none"> Provide an introductory paragraph. Establish and support a central idea with a topic sentence at or near the beginning of the first paragraph. Include supporting paragraphs with simple facts, details, and explanations. Present important ideas or events in sequence or in chronological order. Provide details and transitions to link paragraphs. Conclude with a paragraph that summarizes the points. Use correct indentation at the beginning of paragraphs. 	Partial: Requires a grade 4 standard involving writing expository texts. With this portion of the CCSS, the GDOE doesn't really specify linking words and phrases.	-Determine purpose for writing -Determine correct order of sentences -Identify correctly and effectively written sentences	N/A

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
		<ul style="list-style-type: none"> Use varied word choices to make writing interesting. 			
3.W.2d	Write informative/explanatory texts to examine a topic and convey ideas and information clearly: Provide a concluding statement or section related to the information or explanation presented.	4.4.2 Create multiple paragraph expository texts that: <ul style="list-style-type: none"> Provide an introductory paragraph. Establish and support a central idea with a topic sentence at or near the beginning of the first paragraph. Include supporting paragraphs with simple facts, details, and explanations. Present important ideas or events in sequence or in chronological order. Provide details and transitions to link paragraphs. Conclude with a paragraph that summarizes the points. Use correct indentation at the beginning of paragraphs. Use varied word choices to make writing interesting. 	Partial: Requires a grade 4 standard involving writing expository texts.	-Determine purpose for writing	N/A
3.W.3a	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.	3.4.3 Write narratives that provide a context in which an action takes place and include details to develop the plot.	Aligned	-Determine purpose for writing -Determine topic relevance -Organize information	N/A
3.W.3b	Write narratives to develop real	3.4.1 Use multiple strategies to	Partial: GDOE	-Determine	N/A

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	or imagined experiences or events using effective technique, descriptive details, and clear event sequences: Use dialogue and description of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.	generate ideas for writing. 3.4.3 Write narratives that provide a context in which an action takes place and include details to develop the plot.	standards do not specifically include using dialogue.	purpose for writing -Determine topic relevance -Organize information	
3.W.3c	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences: Use temporal words and phrases to signal event order.	3.4.1 Use multiple strategies to generate ideas for writing. 3.4.3 Write narratives that provide a context in which an action takes place and include details to develop the plot.	Partial: 3rd grade standards do not specify temporal words and phrases to signal event order.	-Determine purpose for writing -Determine topic relevance -Organize information	N/A
3.W.3d	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences: Provide a sense of closure.	3.4.3 Write narratives that provide a context in which an action takes place and include details to develop the plot.	Partial: GDOE standards do not address the aspect of closure.	-Determine purpose for writing -Determine topic relevance -Organize information	N/A
3.W.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.)	3.4.7 Review, evaluate, and revise writing for meaning and clarity. 3.4.8 Proofread one's own writing, as well as that of others, using an editing checklist or list of grammar rules. 3.7.2 Use a computer to draft, revise, and publish writing.	Partial: Aligned using two grade level GDOE standards.	N/A	N/A

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3.W.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.)	3.4.7 Review, evaluate, and revise writing for meaning and clarity. 3.4.8 Proofread one's own writing, as well as that of others, using an editing checklist or list of grammar rules.	Aligned	N/A	N/A
3.W.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.	3.7.2 Use a computer to draft, revise, and publish writing.	Aligned	N/A	N/A
3.W.7	Conduct short research projects that build knowledge about a topic.	3.4.1 Use multiple strategies to generate ideas for writing. 4.7.1 Use multiple reference materials and online information (the Internet) to provide evidence that justifies their writing.	Partial: 3rd grade standards do not specify research about a topic. Combining the 4th grade standards, this may be inferred.	-Determine purpose for writing	N/A
3.W.8	Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	5.7.4 Use note-taking skills (active listening, identifying main ideas, drawing diagrams to clarify notes) when using technological and informational resources to conduct research.	Partial: only GDOE grade 5 addresses note-taking with regarding to technology and research.	N/A	N/A
3.W.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single	3.4.1 Use multiple strategies to generate ideas for writing. 4.4.3 Write for different purposes (information, persuasion, description)	Partial: 3rd grade standards do not include writing over extended time frame	N/A	N/A

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	sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	and to a specific audience or person.	and for a range of tasks and audiences. Would require the grade 4 skills.		
3.SL.1a	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.	3.8.1 Work with a partner or small group as authors and readers of a text and share various interpretations of the text.	Aligned	N/A	N/A
3.SL.1b	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: 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	3.8.1 Work with a partner or small group as authors and readers of a text and share various interpretations of the text.	Partial: 3rd grade does not specify rules for discussions.	N/A	N/A

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	the topics and texts under discussion).				
3.SL.1c	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: Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.	3.6.1 Retell, paraphrase, and explain what a speaker has said. 3.6.2 Connect and relate experiences and ideas to those of a speaker. 3.8.1 Work with a partner or small group as authors and readers of a text and share various interpretations of the text.	Partial: The combination of 3rd grade standards does not cover all of CCSS elements.	N/A	3.2.2: #15–16 Ask and answer questions
3.SL.1d	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: Explain their own ideas and understanding in light of the discussion.	3.6.1 Retell, paraphrase, and explain what a speaker has said. 3.6.2 Connect and relate experiences and ideas to those of a speaker. 4.6.1 Ask thoughtful questions and respond orally to relevant questions with appropriate elaboration. 4.6.4 Emphasize points in ways that help the listener or viewer follow important ideas and concepts.	Partial: Aligned with the combination of 3rd and 4th grade standards.	N/A	N/A
3.SL.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.	3.6.1 Retell, paraphrase, and explain what a speaker has said. 3.6.2 Connect and relate experiences and ideas to those of a speaker. 4.6.1 Ask thoughtful questions and respond orally to relevant questions	Partial: Aligned with the combination of 3rd and 4th grade standards.	N/A	N/A

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
		with appropriate elaboration. 4.6.4 Emphasize points in ways that help the listener or viewer follow important ideas and concepts.			
3.SL.3	Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.	3.6.1 Retell, paraphrase, and explain what a speaker has said. 3.6.2 Connect and relate experiences and ideas to those of a speaker. 4.6.1 Ask thoughtful questions and respond orally to relevant questions with appropriate elaboration.	Partial: Aligned with the combination of 3rd and 4th grade standards.	N/A	N/A
3.SL.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.	3.1.2 Read aloud grade level appropriate literary and informational text fluently and accurately and with appropriate timing, change in voice, and expression. 3.6.4 Provide a beginning, a middle, and an end to oral presentations, including details that develop a central idea. 3.6.5 Clarify and enhance oral presentations through word choice and the use of appropriate props, including objects, pictures, and charts.	Partial: Aligned using multiple grade level GDOE standards.	N/A	N/A
3.SL.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	3.3.5 Recognize that certain words and rhythmic patterns can be used in a selection to imitate sounds. 3.6.5 Clarify and enhance oral presentations through word choice and the use of appropriate props,	Partial: The combination of GDOE standards does not include audio recordings.	N/A	N/A

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	facts or details.	including objects, pictures, and charts. 3.6.6 Plan and present dramatic interpretations of experiences, stories, poems, or plays.			
3.SL.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 for specific expectations.)	N/A	N/A	N/A	N/A
3.L.1a	Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.	3.5.2 Identify and use subject and verb agreement (<i>we are</i> instead of <i>we is</i>) and verb tenses properly in writing. 3.5.3 Identify and correctly use pronouns (<i>it, him, her</i>), adjectives (<i>brown eyes, two younger sisters</i>), compound nouns (<i>summertime, snowflakes</i>), and articles (<i>a, an, the</i>) in writing.	Partial: The GDOE standards ask for simple identification, while the CCSS asks for an explanation of functions. This also requires two grade level standards to meet the CCSS.	-Identify correctly applied grammar	3.5.2: #12; 25 Verb tense 3.5.3: #26–28 Identify nouns, pronouns, adjectives
3.L.1b	Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Form and use regular and irregular plural nouns.	2.1.4 Identify and correctly use regular plural words (<i>mountain/mountains</i>) and irregular plural words (<i>child/children, mouse/mice</i>). 3.5.3 Identify and correctly use pronouns (<i>it, him, her</i>), adjectives (<i>brown eyes, two younger sisters</i>), compound nouns (<i>summertime, snowflakes</i>), and articles (<i>a, an, the</i>) in	Partial: 3rd grade standards do not specify regular and irregular plural nouns.	-Identify correctly applied grammar	3.5.2: #12; 25 Verb tense

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
		writing.			
3.L.1c	Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Use abstract nouns (e.g., <i>childhood</i>).	3.5.3 Identify and correctly use pronouns (<i>it, him, her</i>), adjectives (<i>brown eyes, two younger sisters</i>), compound nouns (<i>summertime, snowflakes</i>), and articles (<i>a, an, the</i>) in writing.	Partial: 3rd grade standards do not specify abstract nouns.	-Identify correctly applied grammar	3.5.2: #12; 25 Verb tense 3.5.3: #26–28 Identify nouns, pronouns, adjectives
3.L.1d	Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Form and use regular and irregular verbs.	3.5.2 Identify and use subject and verb agreement (<i>we are</i> instead of <i>we is</i>) and verb tenses properly in writing.	Partial: 3rd grade standards do not specify regular and irregular verb.	-Identify correctly applied grammar	3.5.2: #12; 25 Verb tense
3.L.1e	Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Form and use the simple (e.g., <i>I walked; I walk; I will walk</i>) verb tenses.	3.5.2 Identify and use subject and verb agreement (<i>we are</i> instead of <i>we is</i>) and verb tenses properly in writing.	Aligned	-Identify correctly applied grammar	3.5.2: #12; 25 Verb tense
3.L.1f	Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Ensure subject-verb and pronoun-antecedent agreement.*	3.5.2 Identify and use subject and verb agreement (<i>we are</i> instead of <i>we is</i>) and verb tenses properly in writing. 3.5.3 Identify and correctly use pronouns (<i>it, him, her</i>), adjectives (<i>brown eyes, two younger sisters</i>), compound nouns (<i>summertime, snowflakes</i>), and articles (<i>a, an, the</i>) in writing.	Partial: Alignment requires both grade level standards. GDOE does not specify pronoun-antecedent agreement.	-Identify correctly applied grammar	3.5.2: #12; 25 Verb tense 3.5.3: #26–28 Identify nouns, pronouns, adjectives
3.L.1g	Demonstrate command of conventions of standard English	3.5.3 Identify and correctly use pronouns (<i>it, him, her</i>), adjectives	Partial: GDOE standards are not	-Identify correctly applied grammar	3.5.3: #26–28 Identify

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	grammar and usage when writing or speaking: Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.	(<i>brown eyes</i> , <i>two younger sisters</i>), compound nouns (<i>summertime</i> , <i>snowflakes</i>), and articles (<i>a</i> , <i>an</i> , <i>the</i>) in writing.	specific to the forms of adjectives and adverbs, nor to understanding modification.		nouns, pronouns, adjectives
3.L.1h	Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Use coordinating and subordinating conjunctions.	N/A	GDOE standards do not specify using coordinating and subordinating conjunctions (words needed in effective research or persuasive speaking and writing).	-Identify correctly applied grammar	N/A
3.L.1i	Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Produce simple, compound, and complex sentences.	3.4.2 Create single paragraphs with topic sentences and simple supporting facts and details, using varied word choices to make writing interesting.	Partial: GDOE standards do not specify sentence types.	-Distinguish between clearly written sentences and sentences that contain errors in expression or construction -Identify correctly and effectively written sentences	N/A
3.L.2a	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing: Capitalize appropriate words in titles.	3.5.5 Capitalize correctly geographical names, holidays, historical periods, and special events (<i>We always celebrate the Liberation of Guam by holding a parade on Marine Corps</i>	Partial: Aligned with the combination of 3rd and 4th grade standards.	-Distinguish correct capitalization	3.5.5: #33–36 Capitalization

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
		<i>Drive in Hagatna.</i>) 4.5.4 Capitalize names of magazines, newspapers, works of art, musical compositions, names of organizations, and the first word in quotations.			
3.L.2b	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing: Use commas in addresses.	3.5.4 Use commas in dates (August 15, 2001), locations (Fort Wayne, Indiana), and addresses (431 Coral Way, Miami, FL), and for items in a series (football, basketball, soccer, and tennis).	Aligned	-Distinguish correct punctuation	3.5.4: # 29–32 Commas
3.L.2c	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing: Use commas and quotation marks in dialogue.	2.5.4 Use quotation marks and commas correctly to show that someone is speaking. 3.5.4 Use commas in dates (August 15, 2001), locations (Fort Wayne, Indiana), and addresses (431 Coral Way, Miami, FL), and for items in a series (football, basketball, soccer, and tennis). 4.5.4 Capitalize names of magazines, newspapers, works of art, musical compositions, names of organizations, and the first word in quotations.	Partial: GDOE addresses these skills at various points during 2nd-4th grade.	-Distinguish correct punctuation	3.5.4: # 29–32 Commas
3.L.2d	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing: Form and use possessives.	1.5.3 Identify and correctly write contractions (<i>isn't, aren't, can't</i>) and possessive nouns (<i>cat's meow, girls' dresses</i>) and possessive pronouns (<i>my/mine, his/hers</i>).	Only grade 1 addresses this skill. 3rd grade standards do not address possessives.	N/A	N/A

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
3.L.2e	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing: Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., <i>sitting</i> , <i>smiled</i> , <i>cries</i> , <i>happiness</i>).	2.5.6 Spell correctly words with short and long vowel sounds (a, e, i, o, u), r-controlled vowels (ar, er, ir, or, ur), and consonant-blend patterns (bl, dr, st). 3.1.7 Use knowledge of prefixes (word parts added at the beginning of words, such as <i>un-</i> , <i>pre-</i>) and suffixes (word parts added at the end of words, such as <i>-er</i> , <i>-ful</i> , <i>-less</i>) to determine the meaning of words.	Partial: 2nd grade standards do not include spelling high-frequency words or suffixes added to base words. 3rd grade standards do not include spelling or writing with suffixes.	-Recognize the correct spelling of sight words -Identify misspelled words in which the incorrect spelling reflects errors in applying structural principles	3.1.7: #9–11 Prefix/suffix
3.L.2f	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing: Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.	2.1.1 Recognize and use knowledge of spelling patterns (such as <i>cut/cutting</i> , <i>slide/sliding</i>) when reading. 2.1.6 Know and use common word families (such as <i>-ale</i> , <i>-est</i> , <i>-ine</i> , <i>-ock</i> , <i>-ump</i>) when reading unfamiliar words. 2.5.6 Spell correctly words with short and long vowel sounds (a, e, i, o, u), r-controlled vowels (ar, er, ir, or, ur), and consonant-blend patterns (bl, dr, st). 3.1.1 Read words with several syllables. 4.5.5 Spell correctly roots (bases of words, such as <i>unnecessary</i> , <i>cowardly</i>), inflections (words like <i>care/careful/caring</i>), words with more than one acceptable spelling (like <i>advisor/adviser</i>), suffixes and prefixes (<i>-ly</i> , <i>-ness</i> , <i>mis-</i> , <i>un-</i>), and syllables	Partial: Alignment would require a combination of 2nd, 3rd, and 4th grade standards.	-Recognize the correct spelling of sight words -Identify misspelled words in which the incorrect spelling reflects errors in applying structural principles	N/A

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
		(word parts each containing a vowel sound, such as <i>sur•prise</i> or <i>e•col•o•gy</i>).			
3.L.2g	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing: Consult reference materials, including beginning dictionaries, as needed to check and correct spelling.	3.1.6 Use a dictionary to learn the meaning and pronunciation of unknown words.	Aligned	N/A	N/A
3.L.3a	Use knowledge of language and its conventions when writing, speaking, reading, or listening: Choose words and phrases for effect.*	3.4.2 Create single paragraphs with topic sentences and simple supporting facts and details, using varied word choices to make writing interesting.	Aligned	N/A	N/A
3.L.3b	Use knowledge of language and its conventions when writing, speaking, reading, or listening: Recognize and observe differences between the conventions of spoken and written standard English.	3.3.5 Recognize that certain words and rhythmic patterns can be used in a selection to imitate sounds. 3.3.6 Identify the speaker or narrator in a selection.	Partial: 3rd grade standards do not specify recognizing the differences between spoken and written English, although its use may be inferred with 3.3.5 and 3.3.6.	N/A	N/A
3.L.4a	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of	3.1.5 Use sentence and word context to find the meaning of unknown words.	Aligned	-Determine unknown words from context	3.1.5: #5–8; 58 Context clues

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	strategies: Use sentence-level context as a clue to the meaning of a word or phrase.				
3.L.4b	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies: Determine the meaning of a 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>).	3.1.7 Use knowledge of prefixes (word parts added at the beginning of words, such as <i>un-</i> , <i>pre-</i>) and suffixes (word parts added at the end of words, such as <i>-er</i> , <i>-ful</i> , <i>-less</i>) to determine the meaning of words.	Aligned	-Determine unknown words from context	3.1.7: #9–11 Prefix/suffix
3.L.4c	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies: 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>).	3.1.7 Use knowledge of prefixes (word parts added at the beginning of words, such as <i>un-</i> , <i>pre-</i>) and suffixes (word parts added at the end of words, such as <i>-er</i> , <i>-ful</i> , <i>-less</i>) to determine the meaning of words. 4.1.2 Use knowledge of root words (<i>nation</i> , <i>national</i> , <i>nationality</i>) and word parts to determine the meaning of unknown words within a passage.	Partial: Using root words is not addressed until grade 4.	-Determine unknown words from context	3.1.7: #9–11 Prefix/suffix
3.L.4d	Determine or clarify the meaning of unknown and multiple-meaning words and	3.1.6 Use a dictionary to learn the meaning and pronunciation of unknown words.	Partial: Glossaries and dictionaries are addressed in separate	N/A	3.2.1: #41–44 Locate information

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	phrases based on grade 3 reading and content, choosing flexibly from a range of strategies: Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.	3.2.1 Use titles, tables of contents, chapter headings, a glossary, or an index to locate information in text.	standards.		
3.L.5a	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).	3.1.3 Determine the meanings of words using knowledge of synonyms (words with the same meaning), antonyms (words with opposite meanings), homophones (words that sound the same but have different meanings and spellings), and homographs (words that are spelled the same but have different meanings). 3.1.5 Use sentence and word context to find the meaning of unknown words. 4.3.4 Define figurative language, such as similes, metaphors, hyperbole, or personification, and identify its use in literary works.	Partial: Skills are addressed in multiple grade 3-4 standards.	-Determine unknown words from context	3.1.3: #1–4 Word meanings 3.1.5: #5–8; 58 Context clues
3.L.5b	Demonstrate understanding of word relationships and nuances in word meanings: Identify real-life connections between words and their use (e.g., describe	3.4.4 Write descriptive pieces about people, places, things, or experiences that develop a unified main idea and use details to support the main idea. 3.6.2 Connect and relate experiences	Partial: 3rd grade standards do not specify the connections between words and their use.	N/A	N/A

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	people who are friendly or helpful).	and ideas to those of a speaker.			
3.L.5c	Demonstrate understanding of word relationships and nuances in word meanings: Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., <i>knew</i> , <i>believed</i> , <i>suspected</i> , <i>heard</i> , <i>wondered</i>).	N/A	GDOE standards do not address shades of meaning.	-Determine unknown words from context	N/A
3.L.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., <i>After dinner that night we went looking for them</i>).	3.4.2 Create single paragraphs with topic sentences and simple supporting facts and details, using varied word choices to make writing interesting. 3.4.4 Write descriptive pieces about people, places, things, or experiences that develop a unified main idea and use details to support the main idea.	Partial: 3rd grade standards do not include spatial, temporal, academic, or domain-specific words.	N/A	N/A

*Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking



College and Career Readiness Anchor Standards

The college and career readiness standards offer a broad spectrum of what students will be able to demonstrate as a result of mastery of the more specific, grade level standards, which follow the umbrella anchor standards listed below for reading and writing. In students' abilities to exhibit an increasing fullness of being literate individuals, they will be able to: demonstrate independence; build strong content knowledge; respond to varying demands of audience, task, purpose, and discipline; comprehend as well as critique; value evidence; use technology and digital media strategically and capably; and understand other perspectives and cultures.

College and Career Readiness Anchor Standards for Reading

Key Ideas and Details

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 the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

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

Integration of Knowledge and Ideas

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

Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

College and Career Readiness Anchor Standards for Writing

Text Types and Purposes

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
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.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
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.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

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 tasks, purposes, and audiences.

College and Career Readiness Anchor Standards for Language

Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

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.

Vocabulary Acquisition and Use

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.
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
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.

College and Career Readiness Anchor Standards for Speaking and Listening

Comprehension and Collaboration

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.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

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.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated.



<p>Big Idea 1, Quarter 1: Students will be able to use grade-level phonics for decoding and parts of speech in writing and speaking.</p>	<p>Essential Question(s): Why is it important to have all the different parts in a sentence in the correct order?</p>
<p>Standards:</p> <p>3.RF.3a-d Know and apply grade-level phonics and word analysis skills in decoding words: a) Identify and know the meaning of the most common prefixes and derivational suffixes; b) Decode words with common Latin suffixes; c) Decode multisyllable words; d) Read grade-appropriate irregularly spelled words.</p> <p>3.W.2c Write informative/explanatory texts to examine a topic and convey ideas and information clearly: Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.</p> <p>3.SL.1a 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.</p> <p>3.L.1a-d Demonstrate command of conventions of standard English grammar and usage when writing or speaking: a) Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions, in particular sentences; b) Form and use regular and irregular plural nouns; c) Use abstract nouns (e.g., childhood); d) Form and use regular and irregular verbs.</p>	

Suggested Timeline: 3 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 1: Students will understand how an author uses characters in fictional text (i.e., fables, folktales, and myths) to contribute to events and deliver a central message.</p>	<p>Essential Question(s): How do we determine an author’s central message? What type of evidence can be used to determine an author’s central message?</p>
<p>Standards:</p> <p>3.RL.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RL.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.</p> <p>3.RL.3 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>3.RL.4 Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.</p> <p>3.SL.1d 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: Explain their own ideas and understanding in light of the discussion.</p>	

Suggested Timeline: 2 weeks

<p>Big Idea 3, Quarter 1: Students will write an essay to support an opinion on a given topic, using proper sentence mechanics.</p>	<p>Essential Question(s): How does punctuation change how we read a passage? What strategies can be used to support an opinion?</p>
<p>Standards:</p> <p>3.W.1a 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.</p> <p>3.L.2a-d 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 quotations marks in dialogue; d) Form and use possessives.</p>	

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 4, Quarter 1: Students will write a biography of a famous person that includes complex sentence structures.</p>	<p>Essential Question(s): What structure is needed in writing a biography? What elements of a biography can influence the reader?</p>
<p>Standards:</p> <p>3.L.1e-h Demonstrate command of conventions of standard English grammar and usage when writing or speaking: e) Form and use the simple (e.g., I walked; I walk; I will walk) verb tenses; f) Ensure subject-verb and pronoun-antecedent agreement; g) Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified; h) Use coordinating and subordinating conjunctions.</p> <p>3.W.2a-b <i>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.</i></p>	

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 2: Students will be able to describe the relationship between main ideas, historical events, or scientific concepts from a nonfiction reading selection.</p>	<p>Essential Question(s): How does informational writing differ from narrative writing?</p>
<p>Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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.</p> <p><i>3.W.2a 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.</i></p>	

Suggested Timeline: 2 weeks

<p>Big Idea 2, Quarter 2: Students will write supported opinion pieces by using evidence from text and personal experiences.</p>	<p>Essential Question(s): Why is it important to back up your answers or writing with evidence?</p>
<p>Standards:</p> <p>3.RI.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.</p> <p>3.RI.6 Distinguish their own point of view from that of the author of a text.</p> <p><i>3.W.2b Write informative/explanatory texts to examine a topic and convey ideas and information clearly: Develop the topic with facts, definitions, and details.</i></p> <p>3.W.1b Write opinion pieces on topics or texts, supporting a point of view with reasons: Provide reasons that support the opinion.</p> <p>3.SL.1c 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: Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</p>	

Suggested Timeline: 3 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 3, Quarter 2: Students will compose an informative essay using proper mechanics and text features (e.g., headings, captions, key words).</p>	<p>Essential Question(s): How are text features important in organizing information? Why are mechanics relevant to presenting information?</p>
<p>Standards:</p> <p>3.RI.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.</p> <p>3.W.2d Write informative/explanatory texts to examine a topic and convey ideas and information clearly: Provide a concluding statement or section related to the information or explanation presented.</p> <p>3.SL.1b 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: 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>3.L.2e Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing: Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, happiness).</p>	

Suggested Timeline: 2 weeks

<p>Big Idea 4, Quarter 2: Students will compose an opinion piece using simple, compound, and complex sentences.</p>	<p>Essential Question(s): How is an essay's concluding statement created?</p>
<p>Standards:</p> <p>3.W.1b-d Write opinion pieces on topics or texts, supporting a point of view with 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.</p> <p>3.L.1i Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Produce simple, compound, and complex sentences.</p>	

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 3: Students will be able to ask and answer clarifying questions to support comprehension.</p>	<p>Essential Question(s): How do clarifying questions help a reader?</p>
<p>Standards:</p> <p>3.RL.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RF.4a Read with sufficient accuracy and fluency to support comprehension: Read on-level text with purpose and understanding.</p> <p>3.SL.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>3.L.3a-b Use knowledge of language and its conventions when writing, speaking, reading, or listening: a) Choose words and phrases for effect; b) Recognize and observe differences between the conventions of spoken and written standard English.</p> <p>3.L.5a 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).</p> <p>3.L.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).</p>	

Suggested Timeline: 2.5 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 3: Students will use information from illustrations and texts to compose a narrative essay.</p>	<p>Essential Question(s): How can illustrations support writing an essay? How can information from texts be useful in writing an essay?</p>
<p>Standards:</p> <p>3.RI.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).</p> <p><i>3.RI.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).</i></p> <p>3.W.3a 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.</p> <p>3.SL.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.</p> <p><i>3.SL.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.</i></p>	

Suggested Timeline: 2.5 weeks

<p>Big Idea 3, Quarter 3: Students will be able to distinguish different points of view (character's, author's, narrator's) found in different literary genres.</p>	<p>Essential Question(s): How would a story change if told from a different point of view? How does an author get his/her point across to the reader?</p>
<p>Standards:</p> <p>3.RL.5 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.</p> <p>3.RL.6 Distinguish their own point of view from that of the narrator or those of the characters.</p> <p>3.RL.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).</p>	

Suggested Timeline: 1 week

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 4, Quarter 3: Students will be able to create and present expressive and/or interpretive writing.</p>	<p>Essential Question(s): How can a writer use “temporal” words to create a clear sequence of events? What are ways to keep readers engaged in writing? What are ways to keep audiences engaged in oral presentations?</p>
<p>Standards:</p> <p>3.RF.4b Read with sufficient accuracy and fluency to support comprehension: Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.</p> <p>3.W.3b-d Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences: b) Use dialogue and description of actions, thoughts, and feelings to develop experiences and events or show the responses of characters to situations; c) Use temporal words and phrases to signal event order; d) Provide a sense of closure.</p>	

Suggested Timeline: 3 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 4: Students will use context clues, glossaries, or dictionaries to determine the meaning of unfamiliar words.</p>	<p>Essential Question(s): How can we use context clues to determine meanings of unfamiliar words? How can using context clues be useful during independent reading?</p>
<p>Standards:</p> <p>3.L.4a Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, and d choosing flexibly from a range of strategies: a) Use sentence-level context as a clue to the meaning of a word or phrase; d) Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.</p> <p>3.L.5b-c Demonstrate understanding of word relationships and nuances in word meanings: 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).</p>	

Suggested Timeline: 2 weeks

<p>Big Idea 2, Quarter 4: Students will create different genres by transforming ideas into a finished publication using a writing process.</p>	<p>Essential Question(s): What are some examples of different genres of writing? How might authors collect/organize their thoughts when writing a book? What important steps are involved in the “writing process”?</p>
<p>Standards:</p> <p>3.RI.9 Compare and contrast the most important points and key details presented in two texts on the same topic.</p> <p>3.W.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.</p> <p>3.W.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.)</p> <p>3.W.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.</p> <p>3.W.7 Conduct short research projects that build knowledge about a topic.</p> <p>3.W.8 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>3.W.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.</p>	

Suggested Timeline: 3 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 3, Quarter 4: Students will compare and contrast different literary elements written by the same author about the same or similar characters (e.g., in books from a series).</p>	<p>Essential Question(s): What are similarities and differences between genre types? How are context clues used throughout different genres? What are different styles of writing?</p>
<p>Standards:</p> <p>3.RL.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).</p> <p>3.RL.10 By the end of the year, <u>read and comprehend</u> literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.</p> <p><i>3.RI.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).</i></p> <p>3.RF.4c Read with sufficient accuracy and fluency to support comprehension: Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p> <p><i>3.L.4b-c Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies: b) Determine the meaning of a 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).</i></p>	

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 3, Quarter 4: Students will create oral presentations from their own writing and research.</p>	<p>Essential Question(s): How does a speaker best address an audience? What is the role of a listener in an oral presentation? How are oral presentations important in our society?</p>
<p>Standards:</p> <p>3.RI.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.</p> <p>3.SL.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.</p> <p>3.SL.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.</p> <p>3.SL.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 28 for specific expectations.)</p>	

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized



GUAM District Level Curriculum Guide

Grade 3 – ELA Quarter 1

<p>Big Idea 1, Quarter 1: Students will be able to use grade-level phonics for decoding and parts of speech in writing and speaking.</p>	<p>Essential Question(s): Why is it important to have all the different parts in a sentence in the correct order?</p>
<p>Standards:</p> <p>3.RF.3a-d Know and apply grade-level phonics and word analysis skills in decoding words: a) Identify and know the meaning of the most common prefixes and derivational suffixes; b) Decode words with common Latin suffixes; c) Decode multisyllable words; d) Read grade-appropriate irregularly spelled words.</p> <p>3.W.2c Write informative/explanatory texts to examine a topic and convey ideas and information clearly: Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.</p> <p>3.SL.1a 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.</p> <p>3.L.1a-d Demonstrate command of conventions of standard English grammar and usage when writing or speaking: a) Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions, in particular sentences; b) Form and use regular and irregular plural nouns; c) Use abstract nouns (e.g., childhood); d) Form and use regular and irregular verbs.</p>	
<p>Elements of the Standard(s) – What’s the meaning?</p> <p>Students will identify and know the meaning of most common prefixes and Latin or derivational suffixes (3.RF.3a, b). They will be able to read/decode multisyllabic words and grade-appropriate irregularly spelled words (3.RF.3c, d). They will be able to explain the function of basic parts of speech (e.g., nouns, pronouns, verbs, adjectives, and adverbs), form and use regular and irregular verbs and plural nouns as well as identify and use abstract nouns (e.g., childhood, curiosity, trust). At the sentence level, students will recognize and be able to explain how parts of speech need to be in the correct order in order to communicate ideas (Example: The <u>reading</u> book is on the table. She <u>was reading</u> the book. The book was on the subject <u>of reading</u>.) Students will be able to provide informative writing pieces in which they use linking words and phrases to connect supporting details within the category of information (3.W.2 c). Establish a classroom system in which students work in pairs or small groups in order that they may collaborate ideas on grade-level topics that have been read or studied (3.SL.1a).</p>	
<p>Key Vocabulary</p> <p>multisyllabic, prefix, suffix, Latin, derivational suffix, pronouns, adjectives, adverbs, abstract nouns, transitional words/linking words, collaborate</p>	<p>Links to Prior Learning</p> <ul style="list-style-type: none"> Students know and apply phonics and analysis skills to decode words: distinguish long and short vowels <p>Links to Future Learning</p> <ul style="list-style-type: none"> Students will use knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

	<p>when reading regularly spelled 1-syllable words, common vowel teams, 2-syllable words with long vowels, common prefixes and suffixes. They identified words with inconsistent but common spelling-sound correspondences and irregularly spelled words (2.RF.3a-f).</p> <ul style="list-style-type: none"> • Students practiced collaboration procedures such as taking turns to speak and staying on topic (2.SL.1a). • Students are able to use collective nouns (e.g., group, team), irregular plural nouns (e.g. feet, children, teeth), and reflexive pronouns (e.g., myself, ourselves). They are able to form and use past tense of irregular verbs (e.g., sat, hid, told) (2.L.1a-d). • Students produce explanatory writings in which they introduce a topic, use facts and definitions, and provide a concluding statement (2.W.2). 	<p>affixes) to read accurately unfamiliar multisyllabic words in and out of context (4.RF.3a, 5.RF.3a).</p> <ul style="list-style-type: none"> • Students will discuss or analyze read or studied materials in collaborative groups (4.SL.1a, 5.SL.1a). • Students will use relative pronouns (e.g., who, whom, which, that) and relative adverbs (where, when, why). They will be able to form and use progressive verb tenses (e.g., I was walking, I am walking, I will be walking) and use modal auxiliaries (e.g., can, may must) to convey various conditions (4.L.1a,b,c). • Students will link ideas within and across categories of information using words, phrases, and clauses (e.g., another, for example, in contrast, especially) (4.W.2c, 5.W2c).
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none"> • Focus on one part of speech at a time. (e.g., nouns, adjectives, adverbs, verbs). Provide students with text in which they highlight the part of speech that is being emphasized for identification (3.RF.3). • When highlighting parts of speech that modify (e.g., adjectives-nouns, adverbs-verbs, and adjectives) or replace (e.g., pronouns), have students highlight the word and then draw an arrow to the word it is replacing or modifying (3.RF.3). • Provide cards each written with a different common prefix. Students work in pairs or small groups. A student draws a card and students in the group write as many words as they can with that prefix in their writing journal or notebook. Students should share responses with each other to maximize the resource. They can also illustrate the word before and after a prefix has been added (3.RF.3). 		

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

- Provide cards with derivational suffixes. Students work in pairs or small groups. A student draws a card and students in the group write as many words with the derivational suffix as they can in their writing journal. Students should share with each other to maximize the resource (3.RF.3).
- Display a word bank chart and anchor chart of linking or transitional words and phrases for students to use while they are writing (3.W.2).
- Have students highlight transitional words/linking words and phrases that connect ideas in a text (3.W.2).
- Arrange seating charts for students to work in pairs or small groups. Allow the teams of students to create a poster of norms to follow when they are collaborating (3.SL.1).

Resources & Links to Technology

- <http://www.havefunteaching.com> Key word: **phonics**
- <http://www.education.com/worksheets> free worksheets for phonics
- <http://www.corestandards.org/ELA-Literacy> Appendix C: grade-level writing samples with annotation
- Houghton Mifflin Third Grade English, pp. H14–H15 (Prefixes and Suffixes)
- Houghton Mifflin Third Grade English, U.2, U.3, U.4, U.6 (Nouns, Verbs, Adjectives and Adverbs, Pronouns)
- Houghton Mifflin Third Grade English, Getting Started, The Writing Process, pp.7–27
- Houghton Mifflin Third Grade English, U.1, (Writing sentences), pp. 32–47
- Houghton Mifflin Third Grade English, U.9, (Writing a Research Report) pp. 319–325
- Houghton Mifflin Third Grade Spelling and Vocabulary, U. 27, U.28, U.29, pp.174–191 (Prefixes and Suffixes)
- Houghton Mifflin Third Grade Spelling and Vocabulary, Student Handbook, pp.253–254 (Writer’s Resources)
- Houghton Mifflin Third Grade Reading, Theme 4, Writing Model: A Research Report, pp.40–43

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 2, Quarter 1: Students will understand how an author uses characters in fictional text (i.e., fables, folktales, and myths) to contribute to events and deliver a central message.		Essential Question(s): How do we determine an author’s central message? What type of evidence can be used to determine an author’s central message?	
Standards: 3.RL.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RL.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. 3.RL.3 Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events. 3.RL.4 Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language. 3.SL.1d 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: Explain their own ideas and understanding in light of the discussion.			
Elements of the Standard(s) – What’s the meaning? Students will demonstrate comprehension of narrative text by asking and answering questions and determining central themes or morals while referring directly to passages in text that support their answer (3.RL.1, 3.RL.2). They will be able to explain how a character’s actions or traits contribute to the sequence of events (3.RL.3). The text will also include literal and nonliteral language that students will use to be able to determine meaning (3.RL.4, 3.L5a). When working collaboratively in pairs or small groups, students will be able to clearly explain their own ideas and understanding of a topic (3.SL.1d).			
Key Vocabulary theme, moral, passage, traits, characters, literal, nonliteral language, central message		Links to Prior Learning <ul style="list-style-type: none">Students have asked, answered, and recounted stories using clarify strategies (e.g., who, what, why, where, when, how). They determined central messages or themes and described how characters responded to major events or challenges. They analyzed how words or phrases (e.g.,	
		Links to Future Learning <ul style="list-style-type: none">Students will refer to details found directly in text when explaining themes, drawing inferences, or summarizing the text (4.RL.1, 4.RL.2).They will be able to describe characters, setting, or events using specific details from text. Vocabulary development will include comprehending terms by making connections	

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

	<p>alliterations, rhymes, repeated line) supply rhythm and meaning in a story, poem, or song (2.RL.1, 2.RL.2, 2.RL.3).</p> <ul style="list-style-type: none"> Students practiced asking for clarification or further explanation from peers—possibly using sentence/question frames (2.SL.1c). 	<p>to significant characters found in mythology (e.g., Herculean) (4.RL.3).</p> <ul style="list-style-type: none"> Students will be able to draw conclusions from ideas expressed in collaborative discussions (5.SL.1d).
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none"> Establish a routine of asking questions about a text that has been read by students, but in order to answer the question they must have their finger on the print. Example: “Point in the passage when the main character decides to change.” Have students share and assist each other before calling on an individual (3.RL.1, 3.RL.2, 3.RL.3). Students collect nonliteral phrases found in text and illustrate a literal translation (e.g., raining cats and dogs, airhead, run like the wind). This collection can be displayed in the room or collected in journals and notebooks (3.RL.4). Students create a list of positive feedback responses (e.g., I liked how you explained that, illustrations really helped) to use with peers. This list will be displayed while students are sharing ideas regarding a given topic (3.SL.1). Model (demonstrate completing while thinking aloud) how to use graphic organizers to display information from narrative text (e.g., flow chart-sequence of events, word web-character traits, cause and effect-conflict resolution). After modeling with explanation on the first few stories, students will be able to complete in pairs or small groups with minimum support (3.RL.1, 3.RL.2, 3.RL.3). 		
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> http://www.corestandards.org/ELA-Literacy Appendix B: grade-level reading text suggestions http://www.kidskonnnect.com/343-figurative-language.html (information regarding figurative language) Houghton Mifflin Third Grade English, U.7, U.8 (Narrative Writing) pp. 250–317 Houghton Mifflin Third Grade English, Tools and Tips, p. H11 (Similes) Houghton Mifflin Third Grade Spelling and Vocabulary, (Writer’s Resources) pp. 253–254 Houghton Mifflin Third Grade English, Getting Started, The Writing Process, pp. 7–27 		

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 3, Quarter 1: Students will write an essay to support an opinion on a given topic, using proper sentence mechanics.		Essential Question(s): How does punctuation change how we read a passage? What strategies can be used to support an opinion?
Standards: 3.W.1a 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. 3.L.2a-d 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 quotations marks in dialogue; d) Form and use possessives.		
Elements of the Standard(s) – What’s the meaning? Students will analyze opinion and persuasive writing and reading to determine different strategies that may be employed. Most effective advertisements use three different strategies of persuasion. As students analyze work of others, they will see common combinations of strategies (e.g., fear factor is combined with research or deadlines; image factor is combined with beautiful, healthy, or popular elements). Students can compare and contrast the differences between persuasive writing and opinion writing. They will write opinion pieces in which they introduce a topic, state their opinion, and supply a list of supporting reasons (3.W.1a). Students will be selecting from different strategies of persuasion (e.g., bandwagon, image appeal, fear factor) in order to persuade the reader. They will focus on forming and using possessive nouns and pronouns as well as capitalization, commas, and quotation marks in dialogue in their writing (3.L.2a-d). Students will reflect on the impact that punctuation has in how we may read a passage.		
Key Vocabulary bandwagon, argumentative, merit, support, rationale, image, appeal, tactic	Links to Prior Learning <ul style="list-style-type: none"> Students have written opinion pieces in which they introduced a grade 2-level topic, stated an opinion, supplied supporting reasons using linking words (e.g., because, and, also), and provided a concluding statement (2.W.1). Their writing demonstrated conventions such as capitalization, commas, and apostrophes to form contractions or possessives (2.L.2a-d). 	Links to Future Learning Students will write opinion pieces on grade-level topics in which ideas are logically grouped and supported by facts and details (4.W.1, 5.W.1). They will be linked using grade-level words, phrases, and clauses (e.g., for instance, in order to, consequently, specifically) with a concluding statement or section. Their writing piece will include conventions such as using commas before coordinating conjunctions in a compound sentence, using underlining, quotation marks, or italics to indicate titles of works (4.L.2a-d, 5.L.2a-d).

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BOLD information: Standards that should be emphasized

Instructional Strategies (EL, SIOP, SPED, Marzano)

- Have students in pairs or small groups use question prompts to discuss different advertisements found in magazines (e.g., what strategies are used in the advertisement? How many strategies are used?) (3.W.1).
- Have students create notebooks collecting examples of strategies for persuasion (e.g., image factor, research, fear factor, bandwagon) (3.W.1).
- Students in pairs or small groups create posters advertising an upcoming school event (e.g., parent’s night, open house, student council election) using two or three strategies.
- Students in pairs or small groups write a response to an issue provided in a grade-appropriate newsletter (e.g., weekly reader, social studies) (3.W.1).
- Students use pages from ‘easy readers’ (possibly from grade 2 or 1) to rewrite by inserting dialogue using commas and quotation marks (3.L.2c).
- Students use pages from ‘easy readers’ (possibly from grade 2 or 1) to write summaries using possessive nouns and pronouns (3.L.2d).
- Provide and post daily sentences in which students in pairs or small groups correct conventions (3.L.2a-d).

Resources & Links to Technology

- <http://www.corestandards.org/ELA-Literacy> Appendix A: information regarding opinion and persuasive writing instruction, pp.23–25
- <http://www.corestandards.org/ELA-Literacy> Appendix B: grade-level reading text suggestions
- <http://www.corestandards.org/ELA-Literacy> Appendix C: grade-level writing samples with annotation
- <http://literacy4life.wikispaces.com/Persuasive+Writing> persuasive writing instruction
- <http://esl.about.com> key word: **Possessive-Nouns**
- <http://www.education.com/worksheets> free worksheets for grammar conventions
- Houghton Mifflin Third Grade English, U. 12, Writing to Persuade, pp. 422–444
- Houghton Mifflin Third Grade English, Section 3, Opinion Paragraphs, pp.383–410
- Houghton Mifflin Third Grade English, U. 2, Nouns, pp. 74–77 (possessive nouns)
- Houghton Mifflin Third Grade Reading, Theme 6, Writing Model, pp. 338–339 (Writing Persuasive Essay)

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 4, Quarter 1: Students will write a biography of a famous person that includes complex sentence structures.		Essential Question(s): What structure is needed in writing a biography? What elements of a biography can influence the reader?	
Standards: 3.L.1e-h Demonstrate command of conventions of standard English grammar and usage when writing or speaking: e) Form and use the simple (e.g., I walked; I walk; I will walk) verb tenses; f) Ensure subject-verb and pronoun-antecedent agreement; g) Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified; h) Use coordinating and subordinating conjunctions. 3.W.2a-b 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.			
Elements of the Standard(s) – What’s the meaning? Students will read appropriate grade-level biographies and analyze the structures that are used (3.RI.10). Through collaborative discussions in pairs or small groups, students will explore the elements of a biography that can influence a reader. Students will be able to provide written biographies in which they introduce a topic, include facts, definitions, and details (3.W.2a, b). Their writing will include using simple verb tense with subject-verb agreement (3.L.1e.f). Their descriptions will be enhanced by using comparative (e.g., bigger, faster, stronger) and superlative (e.g., biggest, fastest, strongest) adjectives and adverbs (3.L.1g). Ideas will be connected by using coordinating (e.g., and, but, so, yet, or, nor) and subordinating conjunctions (e.g., since, while, because, so that, while) (3.L.1h).			
Key Vocabulary coordinating conjunctions, subordinating conjunctions, comparative adjectives, superlative adjectives, subject-verb agreement, influence, biography	Links to Prior Learning <ul style="list-style-type: none">Students have written text in which they introduced a grade-appropriate topic, used facts and definitions to develop points, and provided a concluding statement (2.W.2).Their writing included using adjectives, adverbs, reflexive pronouns, and past tense of irregular verbs (2.L.1).		Links to Future Learning <ul style="list-style-type: none">Students will write informative texts to examine grade level-appropriate topics or convey ideas using domain-specific vocabulary. Their writing will develop the topic with facts, definitions, and examples related to the topic with ideas linked within and across categories with words, phrases, or clauses (e.g., in contrast, especially) (4.W.2a-e, 5.W.2a-e).Students will be able to construct more than one paragraph incorporating prepositional

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		phrases and correlative conjunctions (e.g., either/or, neither/nor), and correctly using homonyms (e.g., to, two, too, there, their) (4.L.1, 5.L.1).
Instructional Strategies (EL, SIOP, SPED, Marzano) <ul style="list-style-type: none"> Students can work in pairs or small groups to complete a character web (listing adjectives and phrases from text) focusing on the person of a biography (3.SL.1, 3.L.1g). Systems are established by which students conduct writing peer reviews. They can focus on one skill at a time. For example: Check for just subject and verb agreement on the paper. Check for comparative and superlative adjectives and adverbs (S.SL.1, 3.L.1). Students can categorize biographies according to distinctive traits (e.g., artistic, courageous, leadership). Students work in pairs or small groups to provide a list of elements in a read biography that may influence readers. The lists from the groups are shared with the whole class to discuss similarities across the group. 		
Resources & Links to Technology <ul style="list-style-type: none"> www.eduplace.com/kids/hmss grade level-appropriate biographies http://www.corestandards.org/ELA-Literacy Appendix B: grade-level reading text suggestions—biographies http://www.corestandards.org/ELA-Literacy Appendix C: grade-level writing samples with annotation www.havefunteaching.com key word: conjunctions Harcourt Third Grade Horizons, Biographies (short biographies dispersed throughout the book—see index) Houghton Mifflin Third Grade English, U.3, Verbs, pp.102–103. U.6, Pronouns, pp. 216, 217 (subject-verb agreement) Houghton Mifflin Third Grade Reading, Focus on Genre, Biographies, pp. 120–147 		

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<p>Big Idea 1, Quarter 2: Students will be able to describe the relationship between main ideas, historical events, or scientific concepts from a nonfiction reading selection.</p>		<p>Essential Question(s): How does informational writing differ from narrative writing?</p>
<p>Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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.</p> <p><i>3.W.2a 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.</i></p>		
<p>Elements of the Standard(s) – What’s the meaning? Students will ask and answer questions to determine main ideas of grade-level informational text and explain how key details support it. They will explicitly use text as a basis for their answers (3.RI.1, 3.RI.2). In pairs or small groups, students will collaboratively discuss the connection between events, ideas, steps, or the difference in structure between informational and narrative text (3.RI.3). Students will be able to provide written responses in which they introduce a topic, include facts, definitions, and details (3.W.2a).</p>		
<p>Key Vocabulary text-based answers, main topic, supporting facts, compare and contrast</p>	<p>Links to Prior Learning</p> <ul style="list-style-type: none"> Students have asked and answered clarifying questions to identify main topic and a connection between a series of events, ideas, or concepts (2.RI.1, 2.RI.2, 2.RI.3). Students have written text in which they introduced a grade-appropriate topic, used facts and definitions to develop points, and provided a concluding statement (2.W.2). 	<p>Links to Future Learning</p> <ul style="list-style-type: none"> Students will be able to read grade-level informational text, determine two or main ideas, and quote accurately from text explaining how a main idea is supported by details (4.RI.1-3, 5.RI.1). Students will be able to write informative texts examining grade level-appropriate topics or to convey ideas using domain-specific vocabulary. Their writing will develop the topic with facts, definitions, and examples related to the topic with ideas linked within

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		and across categories with words, phrases, or clauses (e.g., in contrast, especially) (4.W.2a-e, 5.W.2a-e).
Instructional Strategies (EL, SIOP, SPED, Marzano) <ul style="list-style-type: none"> • Display graphic organizers for main topic and supporting facts and sequencing or flowcharts. Students may create them in their writing journal as a reference for later (3.RI.1, 3.RI.2). • Model (demonstrate completing while thinking aloud) how to complete the graphic organizer with students providing input (3.RI.1, 3.RI.2). Point out how a sequence/flowchart answers one kind of question (how the events are related or when they occurred), and a main topic with supporting facts offers organization of different information. • Save the class-completed graphic organizers that were modeled to compare with other literature or text (3.RI.3). • Create a Venn diagram comparing the differences and similarities of informational and narrative texts. 		
Resources & Links to Technology: <ul style="list-style-type: none"> • http://www.corestandards.org/ELA-Literacy Appendix B: grade-level reading text suggestions—informational text • http://www.corestandards.org/ELA-Literacy Appendix C: grade-level writing samples with annotation • Houghton Mifflin Third Grade English, U.1, (Writing Sentences), pp. 32–47 • Houghton Mifflin Third Grade English, U.9, (Writing a Research Report), pp. 319–325 • Houghton Mifflin Third Grade Reading, Theme 4, Writing Model: A Research Report, pp. 40–43 		

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BOLD information: Standards that should be emphasized

Big Idea 2, Quarter 2: Students will write supported opinion pieces by using evidence from text and personal experiences.		Essential Question(s): Why is it important to back up your answers or writing with evidence?
Standards: 3.RI.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. 3.RI.6 Distinguish their own point of view from that of the author of a text. <i>3.W.2b Write informative/explanatory texts to examine a topic and convey ideas and information clearly: Develop the topic with facts, definitions, and details.</i> 3.W.1b Write opinion pieces on topics or texts, supporting a point of view with reasons: Provide reasons that support the opinion. 3.SL.1c 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: Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.		
Elements of the Standard(s) – What's the meaning? Students will continue to read grade-level informational texts (3.RI.10) where they will determine meaning from academic and domain-specific words and phrases (3.RI.4). Students will provide written responses, in which they introduce a topic, include facts, definitions, and details as well as distinguish their point of view from that of the author (3.RI.6, 3.W.2a, b). Establish systems in which students work in pairs or small groups to collaborate, edit, revise, and strengthen their writing (3.SL.1c). They will write opinion pieces in which they introduce a topic, state their opinion, and supply a list of supporting reasons (3.W.1a). Student will select from different methods of persuasion (e.g., research, bandwagon, image appeal, fear factor) in order to persuade the reader. They will reflect on the benefits of backing up their answers or opinions with evidence.		
Key Vocabulary academic vocabulary, domain-specific vocabulary, point of view, strategy, image, persuasion, argumentative	Links to Prior Learning <ul style="list-style-type: none"> Students have determined the meaning of words and phrases in grade 2 topics (2.RI.4). They have analyzed author's purpose of read text (e.g., explain, describe, inform, entertain) (2.RI.6). Students have written opinion pieces in which they introduced a grade 2- 	Links to Future Learning <ul style="list-style-type: none"> Students will expand comprehending academic and domain-specific vocabulary words and phrases in grade-level text (4.RI.4, 5.RI.4). Students will be able to compare and contrast multiple accounts (e.g., firsthand, secondhand) on the same topic (4.RI.6, 5.RI.6).

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	<p>level topic, stated an opinion, supplied supporting reasons using linking words (e.g., because, and, also), and provided a concluding statement (2.W.1).</p> <ul style="list-style-type: none"> Students have written text in which they introduced a grade-appropriate topic, used facts and definitions to develop points, and provided a concluding statement (2.W.2). 	<ul style="list-style-type: none"> Students will write opinion pieces on grade-level topics in which ideas are logically grouped and supported by facts and details. They will be linked using grade-level words, phrases, and clauses (e.g., for instance, in order to, consequently, specifically) with a concluding statement or section (4.W.1, 5.W.1). Students will be able to write informative texts examining grade level-appropriate topics or to convey ideas using domain-specific vocabulary. Their writing will develop the topic with facts, definitions, and examples related to the topic with ideas linked within and across categories with words, phrases, or clauses (e.g., in contrast, especially) (4.W.2a-e, 5.W.2a-e).
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none"> Students in pairs or small groups write a response to an issue provided in a grade-appropriate newsletter (e.g., weekly reader, social studies) in which they express their opinion (3.W.1). Model how to complete a graphic organizer (demonstrate completing while thinking aloud) for opinion statement with supporting reasons or main topic and supporting facts. Then show them how to take the notes from the graphic organizer and produce an opinion writing piece or informational piece (3.W.1., 3.W.2). Display anchor charts or poster with writing expectations for opinion writing (3.W.1). Have students in pairs or small group practice orally providing an opinion with a supporting reason. This can be a follow-up activity from reading literature, science, or social studies (3.SL.1c). Prior to having students use glossaries to look up words, have them highlight the context that helps determine the meaning of an ‘unknown’ word in text. This can be done with text from social studies, science, and literature. 		

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Resources & Links to Technology

- <http://www.corestandards.org/ELA-Literacy> Appendix A: information regarding opinion writing pp. 23–25
- <http://www.corestandards.org/ELA-Literacy> Appendix B: grade-level reading text suggestions
- <http://www.corestandards.org/ELA-Literacy> Appendix C: grade-level writing samples with annotation
- Houghton Mifflin Third Grade English, U.1, (Writing sentences), pp. 32–47
- Houghton Mifflin Third Grade English, U.9, (Writing a Research Report), pp. 319–325
- Houghton Mifflin Third Grade English, U. 12, Writing to Persuade, pp. 422–444
- Houghton Mifflin Third Grade English, Section 3, Opinion Paragraphs, pp. 383–410
- Houghton Mifflin Third Grade Reading, Theme 6, Writing Model, pp. 338–339 (Writing Persuasive Essay)
- Houghton Mifflin Third Grade Reading Theme 4, Writing Model, pp. 40–43 (A Research Report)

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BOLD information: Standards that should be emphasized

Big Idea 3, Quarter 2: Students will compose an informative essay using proper mechanics and text features (e.g., headings, captions, key words).		Essential Question(s): How are text features important in organizing information? Why are mechanics relevant to presenting information?
Standards: 3.RI.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. 3.W.2d Write informative/explanatory texts to examine a topic and convey ideas and information clearly: Provide a concluding statement or section related to the information or explanation presented. 3.SL.1b 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: 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). 3.L.2e Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing: Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, happiness).		
Elements of the Standard(s) – What's the meaning? Students are not only going to identify but also use the structures and features of organizing informational text to retrieve information efficiently (e.g., headings, captions, key words, sidebars, hyperlinks) (3.RI.5). Students will provide written responses in which they accurately use conventional spelling to introduce their topic, include facts with key details, definitions, and provide a concluding statement (3.L.2e, 3.W.2.a, b, d). Having established systems in which students work in pairs or small groups to discuss collaboratively and practicing how to respectfully gain the floor (e.g., taking turns to speak) or respond to others (3.SL.1b) will provide students with oral language development and comprehension practice.		
Key Vocabulary captions, heading, key words, sidebars, hyperlink, notation, claims	Links to Prior Learning <ul style="list-style-type: none"> Students have used various text features such as grade-level glossaries, indexes, subheadings, bold print, electronic menus, and icons (3.RI.5). Students have written text in which they introduced a grade-appropriate topic, used facts and definitions to develop points, and provided a concluding statement (2.W.2). 	Links to Future Learning <ul style="list-style-type: none"> Students will compare and contrast structures (e.g., chronology, cause/effect, problem/solution) within a text or between two or more texts (4.RI.5, 5.RI.5). Students will be able to write informative texts examining grade level-appropriate topics or to convey ideas using domain-specific vocabulary. Their writing will develop the topic with facts, definitions, and examples related to the topic with ideas linked within

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	<ul style="list-style-type: none"> Students have practiced in pairs or small groups, asking for clarification or further explanation from peers—possibly using sentence/question frames (2.SL.1c). 	and across categories with words, phrases, or clauses (e.g., in contrast, especially) (4.W.2a-e, 5.W.2a-e).
Instructional Strategies (EL, SIOP, SPED, Marzano) <ul style="list-style-type: none"> Play a jeopardy-style comprehension game where students in pairs or small groups cannot buzz that they have the answer until their finger is on the print. Their answer will be in question form—thus preparing for formal assessment of the material. This strategy works well with science and social studies/history units as well. Model (demonstrate completing while thinking aloud) using a graphic organizer to collect information from text then extracting the information from the graphic organizer to create informational writing (3.W.2). Display writing sample and expectations for informational writing (3.W.2). Example: <ol style="list-style-type: none"> Introduce topic. Use a minimum of three key vocabulary terms pertaining to the topic. Include the definitions. Offer three supporting facts with details connected by transitional or temporal words. Create charts, graphs, or illustrations to clarify the writing. Provide a closing statement. Display an anchor chart or word bank for transitional (e.g., in addition, meanwhile) and temporal (e.g., first, next, finally) words for connecting ideas and concepts (3.L.2). Students have been guided to create a resource of transitional and temporal words <u>with examples</u> in their writing journal (3.L.2). Establish peer-review schedules in which students in pairs or small groups review each other’s writing on different elements (e.g., spelling, conventions, grammar, counting the number of supporting facts, checking for closing statement, use of transitional or temporal words) (3.W.2, 3.L.2, 3.SL.1b). Students collect writing samples throughout the year to develop at a later date using current instructional focus on conventions (3.W.2, 3.L.2). 		
Resources & Links to Technology <ul style="list-style-type: none"> http://www.corestandards.org/ELA-Literacy Appendix C: grade-level writing samples with annotation http://www.internet4classrooms.com/text_features (information regarding text features) Houghton Mifflin Third Grade English, U.1, (Writing sentences), pp. 32–47 Houghton Mifflin Third Grade English, U.9, (Writing a Research Report) pp. 319–325 Houghton Mifflin Third Grade Reading, Theme 4, Student Writing Model: A Research Report, pp. 40–43 		

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BOLD information: Standards that should be emphasized

Big Idea 4, Quarter 2: Students will compose an opinion piece using simple, compound, and complex sentences.		Essential Question(s): How is an essay’s concluding statement created?
Standards: 3.W.1b-d Write opinion pieces on topics or texts, supporting a point of view with 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. 3.L.1i Demonstrate command of conventions of standard English grammar and usage when writing or speaking: Produce simple, compound, and complex sentences.		
Elements of the Standard(s) – What’s the meaning? Students will write opinion pieces in which they introduce a topic, state their opinion, and use linking words (e.g., because, therefore, since, for example) to connect a list of supporting reasons and provide a concluding statement in which they may reword their opinion (3.W.1a-d, 3.L.1h). As they work in pairs or small groups, students can assist each other in the revision of their writing to include simple compound and complex sentences (3.L.1i).		
Key Vocabulary opinion, reasoning, rationale, concluding statement, supporting, compound sentence, complex sentence, claim	Links to Prior Learning <ul style="list-style-type: none"> Students have written opinion pieces in which they introduced a grade 2-level topic, stated an opinion, supplied supporting reasons using linking words (e.g., because, and, also), and provided a concluding statement (2.W.1). Students have included in writing or speaking frequently occurring prepositions (e.g., during, beyond, toward) (2.L.1i). 	Links to Future Learning Students will write opinion pieces on grade-level topics in which ideas are logically grouped and supported by facts and details. They will be linked using grade-level words, phrases, and clauses (e.g., for instance, in order to, consequently, specifically) and provide a concluding statement or section (4.W.1, 5.W.1).
Instructional Strategies (EL, SIOP, SPED, Marzano) <ul style="list-style-type: none"> Display anchor charts or word lists categorizing conjunctions (linking words) by their purpose (e.g., subordinating, coordinating, correlation) (3.W.1b, 3.L.1h) as a visual resource. Students create a resource list of conjunctions (linking words) by their purpose with examples in a writing journal (3.W.1b, 3.L.1h). 		

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- Display writing sample and expectations for informational writing (3.W.1).
Example:
 1. Introduce topic and opinion or claim.
 2. Use a minimum of 2 strategies (e.g., research, image, bandwagon, fear factor) to support your claim.
 3. Use transitional or temporal words to connect supporting ideas.
 4. Create charts, graphs, or illustrations to clarify the writing.
 5. Provide a concluding statement.
- Model (demonstrate while thinking aloud) how to create a concluding statement by extracting elements from the introduction and the body of content to summarize into a final statement (3.W.1d).
- Display anchor chart or poster of how to create a concluding statement as a visual reminder (3.W.1d).
- Students create complex sentences from simple easy readers—possibly using books from grades 1 and 2 (3.L.1i).
- Peer-review teams are instructed to identify and tally the number of simple and complex sentences in students’ writing pieces. They should not see all simple sentences (too choppy) or all complex sentences (too confusing). As students examine other writing pieces, they will gain recognition that smooth writing/reading requires a blend of simple and complex sentences (3.L.1i).

Resources & Links to Technology

- <http://www.corestandards.org/ELA-Literacy> Appendix C: grade-level writing samples with annotation
- Houghton Mifflin Third Grade English, U.1, The Sentence, pp. 31–47, 110–111
- Houghton Mifflin Third Grade English, U. 12, Writing to Persuade, pp. 422–444
- Houghton Mifflin Third Grade English, Section 3, Opinion Paragraphs, pp. 383–410
- Houghton Mifflin Third Grade Reading, Theme 6, Writing Model, pp. 338–339 (Writing Persuasive Essay)

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 1, Quarter 3: Students will be able to ask and answer clarifying questions to support comprehension.		Essential Question(s): How do clarifying questions help a reader?	
Standards: 3.RL.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RF.4a Read with sufficient accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. 3.SL.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. 3.L.3a-b Use knowledge of language and its conventions when writing, speaking, reading, or listening: a) Choose words and phrases for effect; b) Recognize and observe differences between the conventions of spoken and written standard English. 3.L.5a 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). 3.L.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).			
Elements of the Standard(s) – What’s the meaning? Students will be using text to explicitly ask and answer comprehension questions. This is different than answering questions based on what you remembered from reading. They will have to locate the implied or explicit word or phrase that supports the answer to clarifying questions whether from the text or a speaker (3.RL.1, 3RI.1.3.SL.3). Text will include exposure to literal and nonliteral language in which students will need to determine meaning (3.RL.4, 3.L.5a). Systems need to be established to provide multiple opportunities for students to read and reread passages (e.g., reading in pairs, small groups, whisper reading, echo reading, choral reading). Multiple reads foster accuracy of pronunciation and expression/prosody (e.g., rhythm, stress, and intonation of speech) and allow for comprehension or meaning of text (3.RF.4a). Students will analyze text to recognize that words and phrases are selected for effect and will observe the difference between spoken and written standard English (3.L.3). Students will be able to accurately use academic and domain-specific vocabulary words and phrases including words or phrases that indicate spatial or time connections (e.g., <i>Before</i> going to the park <i>later</i> , we’ll need lunch.) that are grade-appropriate (3.L.6).			
Key Vocabulary quote, site, literal, nonliteral, domain-specific, academic vocabulary, prosody, expression, text		Links to Prior Learning <ul style="list-style-type: none">Students have asked and answered clarifying questions to identify main topic, a connection between a series of events, ideas, or gain more	
		Links to Future Learning <ul style="list-style-type: none">Students will refer to details found directly in text when explaining themes, identifying reasons, drawing inferences, or summarizing from text or information from a speaker	

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

	<p>understanding of a topic from text or a speaker (2.RI.1, 2.RI.2, 2.RI.3, 2.SL.3).</p> <ul style="list-style-type: none">• Students have compared the differences between formal (literature print) and informal (conversational) speech (2.L.3).• Students can speak in complete sentences to ask or answer a question (2.SL.6).	<p>(4.RL.1, 4.RL.2, 4.SL.4).</p> <ul style="list-style-type: none">• Students will be able to read grade-level informational text, determine two or more main ideas, and quote accurately from text explaining how a main idea is supported by details (4.RI.1-3, 5.RI.1).• Students will determine whether they are writing, speaking, reading, or listening; which situations where informal or formal English is appropriate; to select which specific words or phrases convey ideas; and choose punctuation to provide an effect (4.L.3).• Students will use vocabulary that indicates precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) (4.SL.6).				
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none">• Establish a routine of asking questions about a text that has been read by students, but in order to answer the question they must have their finger on the print. Example: “Point in the passage when the main character decides to change.” Have students share and assist each other before calling on an individual (3.RL.1, 3.RL.2, 3.RL.3).• Students collect nonliteral phrases found in text and illustrate a literal translation (e.g., raining cats and dogs, airhead, run like the wind, computer brain). This collection can be displayed in the room or collected in journals and notebooks (3.RL.4, 3.L.5a).• Students can insert nonliteral phrases (metaphors and similes) in easy readers (from grades 1 or 2) to create explicit descriptions of characters or events (3.RL.4, 3.L.3a, 3.L.5a).• Students will work in pairs or small groups to ask and answers questions to each other based on an oral presentation from a peer (3.SL.3).• Provide a T-chart in which students with guidance from adults complete a list of conventions comparing printed language and spoken language (3.L.3b). <p>Example:</p> <table><tr><th>Spoken Language</th><th>Written English</th></tr><tr><td>Sentence fragments</td><td>Complete sentences with punctuation</td></tr></table>			Spoken Language	Written English	Sentence fragments	Complete sentences with punctuation
Spoken Language	Written English					
Sentence fragments	Complete sentences with punctuation					

Italic Information: Recursive standard – repeated in at least one other quarter

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Slang terms	Proper vocabulary
Pauses, gestures, volume	Appropriate conventions: commas, punctuation
Changing topics frequently & abruptly	Same topic grouped in paragraphs, connected by linking words
Make actual sounds with intonation or melody	Phonetically write sounds in quotations or interjections

Resources & Links to Technology

- <http://www.corestandards.org/ELA-Literacy> Appendix B: grade-level reading suggestions
- Houghton Mifflin Third Grade English, Getting Started, Speaking, Listening and Viewing, pp. 1–6
- Houghton Mifflin Third Grade English, Similes, p. H11
- Houghton Mifflin Third Grade Reading, How to Use the SQRR Plan, p. 36

Big Idea 2, Quarter 3: Students will use information from illustrations and texts to compose a narrative essay.	Essential Question(s): How can illustrations support writing an essay? How can information from texts be useful in writing an essay?
Standards: 3.RI.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). <i>3.RI.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).</i> 3.W.3a 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. 3.SL.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. <i>3.SL.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.</i>	

Italic Information: Recursive standard – repeated in at least one other quarter

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<p>Elements of the Standard(s) – What’s the meaning?</p> <p>Students will create a narrative essay with illustrations (e.g., maps, photographs) in which the narrator or characters are introduced and events are sequenced in descriptive detail (3.RI.7, 3.W.3a). As students share their writings with peers, the listeners will be able to determine the main idea and supporting details and provide feedback on the impact of the illustration (3.SL.2, 3.RI.7, 3.SL.4). Students may use information from text (e.g., characters, setting, a specific event) as a basis for their narrative. As students continue to read informational text, they will focus on the value of information gained from illustrations and be able to describe the relationship between particular sentences and paragraphs in their text (e.g., comparison, cause/effect, sequence: first/second/third) (3.RI.7, 3.RI.8).</p>		
<p>Key Vocabulary</p> <p>narrative, narrator, characters, sequence, impact, setting, event</p>	<p>Links to Prior Learning</p> <ul style="list-style-type: none"> Students have used illustrations in a text to describe key details, and identified the reasons an author provides that support the point of the text (2.RI.7, 2.RI.8). Students have written narratives with two or more sequenced detailed events with temporal words and provided some sense of closure (2.W.3). 	<p>Links to Future Learning</p> <ul style="list-style-type: none"> Students will interpret information presented visually, orally, or quantitatively (e.g., charts, graphs, diagrams, timelines, animations, or interactive elements on web pages) to explain the value it provides to the text. They will also be able to explain how the author uses reasons and evidence to support particular points (4.RI.7, 4.RI.8). Students will compose narratives in which they establish the narrator or characters and present an event sequence using a variety of transitional words and phrases. Their writing will include dialogue and sensory details to help show the characters’ responses to situations (4.W.3, 5.W.3). Students will be able to orally report on a topic using facts and relevant details by paraphrasing portions of a text that was heard or presented in diverse media and formation (4.SL.2, 4.SL4).

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Instructional Strategies (EL, SIOP, SPED, Marzano)

- Show a short video and have students complete a graphic organizer for main idea and supporting details (3.SL.2).
- Display samples of writing and expectations for narrative writing (3.W.3a).
Example:
 1. Introduce characters, setting.
 2. Use a minimum of two sequenced events to a conflict/climax using temporal words to indicate sequence (3.W.3a, 3.W.3c).
 3. Resolve conflict/climax in a logical manner (avoid ‘I woke up and it was all a dream...’) (3.W.b).
 4. Create illustrations to clarify the setting, characters, or events.
 5. Provide closure (3.W.3d).
- Students read their written narrative and display their illustration to a partner or in a small group while the listener(s) complete a graphic organizer for main idea and supporting details. Feedback will include discussing or matching the intent of the writer and the actual notes in the graphic organizer from the listeners (3.SL.4).
- Students in pairs or small groups provide constructive feedback regarding the impact of the illustration (3.SL.2, 3.RI.7, 3.W.3, 3.SL.4) provided with the narrative writing.

Resources & Links to Technology

- <http://www.corestandards.org/ELA-Literacy> Appendix B: grade-level reading suggestions
- <http://www.corestandards.org/ELA-Literacy> Appendix C: grade-level writing samples with annotation
- Houghton Mifflin Third Grade Reading, Tools and Tips, Using Visuals, p. H.24
- Houghton Mifflin Third Grade Reading, Genre: Photo Essay, pp. 248–253 (How to read a photo essay)

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 3, Quarter 3: Students will be able to distinguish different points of view (character's, author's, narrator's) found in different literary genres.		Essential Question(s): How would a story change if told from a different point of view? How does an author get his/her point across to the reader?
Standards: 3.RL.5 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. 3.RL.6 Distinguish their own point of view from that of the narrator or those of the characters. 3.RL.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).		
Elements of the Standard(s) – What's the meaning? Students will be analyzing text for different structures, viewpoints, and the contribution of illustrations. They will be able to determine different points of view in a variety of literature and speculate how it may change if told from a different point of view (3.RL.6). Students will look at the structures of text (e.g., chapter books, songs, plays, poems) and determine the organizational structure (e.g., chapter, scene, stanza, verse). Through this organization, students will observe how each successive part built on earlier sections (3.RL.5). Students will explain the relationship between illustrations and the words in a story (e.g., "The text says 'gloomy' and the picture shows a dark sky", "The text says 'exhausted' and the picture shows the man collapsed in a chair.") (3.RL.7).		
Key Vocabulary poem, play, stanza, chapter, scene, sequence, related, perspective, point of view	Links to Prior Learning <ul style="list-style-type: none"> Students have described the structure of a story line: beginning introduces the characters and setting, middle develops the conflict or climax, and the end provides the resolution (2.RL.5). Students have acknowledged difference in point of view of characters and used information from illustrations to describe characters, setting, or elements of the plot (2.RL.6, 2.RL.7). 	Links to Future Learning <ul style="list-style-type: none"> Students will explain in writing or speaking the major differences between poems, drama, and prose based on structural elements (4.RL5). Students will compare and contrast the point of view from which stories are narrated (e.g., firsthand and third-person accounts) (4.RL.6). Students will compare different presentations of text such as text vs. visual or oral presentations (4.RL.7).

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Instructional Strategies (EL, SIOP, SPED, Marzano)

- Students in pairs or small groups will complete a graphic organizer depicting the structure of a play, poem, song, or chapter book, providing a paraphrase of each part (chapter, scene, stanza) 3.RL.5.
- Students in pairs or small groups complete a graphic organizer for writing ideas of perspective. They will list common nouns and then list different perspectives for viewing that noun (3.RL.6). (See example in table grid.) This grid can be used later for writing exercises (3.W.3).

Example:

<i>Nouns:</i>	Hat	Rocking chair	Glasses	flower
<i>From the perspective of:</i>	A man's bald head needing to be covered	A crying baby that needs to be soothed	A grandmother baking and can't see the recipe	A bumblebee searching for nectar
	The wind wanting to blow it off	A cat wanting a nap	A first-grader getting them for the first time	A little girl wanting to give a gift
	The hat <i>wanting</i> a head to sit upon	An old woman needing a nap	Sunglasses waiting for purchase	The garden welcoming a newcomer

- Students locate the words or phrases in text that provide the clues for determining who is telling the story (3.RL.6).
- Provide pictures for students in pairs or small groups to list the details from the illustrations that contribute to the mood or setting (3.RL.7).
- Students in pairs or small groups match quotes/actual text from a story to what is shown in the illustrations (3.RL.7).
- Students may read aloud in pairs or small groups and change their voice depending on the character who is speaking (3.RL.6).

Resources & Links to Technology

- <http://www.corestandards.org/ELA-Literacy> Appendix B: grade-level reading text suggestions
- Harcourt Third Grade Horizon, Chapter 8, Determine Point of View in Pictures, pp. 266–267
- Houghton Mifflin Third Grade English, U.11, Opinion, pp.420–421 (Finding the viewpoint in pictures)
- Houghton Mifflin Third Grade Reading, Theme 1, Theme 4, How to Read a Poem, pp. 118, 196
- Houghton Mifflin Third Grade Reading, Theme 1, Focus on Genre: Poetry, pp. 138–150

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 4, Quarter 3: Students will be able to create and present expressive and/or interpretive writing.		Essential Question(s): How can a writer use “temporal” words to create a clear sequence of events? What are ways to keep readers engaged in writing? What are ways to keep audiences engaged in oral presentations?
Standards: 3.RF.4b Read with sufficient accuracy and fluency to support comprehension: Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. 3.W.3b-d Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences: b) Use dialogue and description of actions, thoughts, and feelings to develop experiences and events or show the responses of characters to situations; c) Use temporal words and phrases to signal event order; d) Provide a sense of closure.		
Elements of the Standard(s) – What’s the meaning? Students will be polishing their narrative writing and presenting skills by inserting dialogue and using word choice (e.g., temporal or transitional words, descriptive actions, thoughts, and experiences) (3.W.3b-d). Established collaborative systems allow students to practice multiple readings to build accuracy and fluency, and to allow for peer feedback and revision. Students will be provided opportunities to present grade-level poetry or prose (3.RF.4b) in pairs or small groups.		
Key Vocabulary dialogue, transitional, closure, prose, poetry, meter, rhyme	Links to Prior Learning Students are familiar with reading on-level text with purpose and understanding. They have had experienced reading orally with accuracy, appropriate rate, and expression (2.RF.4a, b).	Links to Future Learning <ul style="list-style-type: none"> Students will read grade-level prose and poetry orally with accuracy and prosody (4.RF.4b). Students will write narratives using dialogue, transitional words to sequence events, and sensory details to convey experiences precisely (4.W.3b-d).
Instructional Strategies (EL, SIOP, SPED, Marzano) <ul style="list-style-type: none"> Display anchor chart or poster with list of temporal or transitional words for students to use in their writing (3.W.3c). Have students work in pairs or small groups to highlight temporal or transitional words found in text (3.W.3c). Use pages from simple ‘early readers’ for students to revise inserting dialogue and description of actions (3.W.3b). Display an anchor chart with examples of different closures (e.g., circular, emotional, unfinished business, summary) (3.W.3d). Display an anchor chart or poster as visual support for the conventions in using dialogue (e.g., capitals, commas, quotation marks) (3.W. 3b). 		

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

- Have students present grade-level poetry or prose in pairs or small groups (3.RF.4b). Students may include their own illustration to enhance their presentation. Listeners may provide feedback (3.SL.1).

Resources & Links to Technology

- <http://www.corestandards.org/ELA-Literacy> Appendix B: grade-level reading text suggestions
- <http://www.corestandards.org/ELA-Literacy> Appendix C: grade-level writing samples with annotation
- Houghton Mifflin Third Grade English, U.8, Writing a Story, pp. 287–307.
- Houghton Mifflin Third Grade Reading, Theme 1, How to Read a Poem, pp. 96
- Houghton Mifflin Third Grade Reading, Theme 1, Focus on Genre: Poetry, pp. 138–150.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 1, Quarter 4: Students will use context clues, glossaries, or dictionaries to determine the meaning of unfamiliar words.		Essential Question(s): How can we use context clues to determine meanings of unfamiliar words? How can using context clues be useful during independent reading?
Standards: 3.L.4a Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, and d choosing flexibly from a range of strategies: a) Use sentence-level context as a clue to the meaning of a word or phrase; d) Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases. 3.L.5b-c Demonstrate understanding of word relationships and nuances in word meanings: 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).		
Elements of the Standard(s) – What’s the meaning? Students will increase their reference resource skills to include the use of dictionary and glossary tools in both print and digital form (3.L.4d) to help them determine the meaning of unknown words as well as context clues (3.L.4a). Students will work closely with the meanings of words in their relationship to each other (e.g., antonyms, synonyms, shades of meaning) (3.L.5b, c). These skills will enhance students’ reading comprehension as well as their word choice when writing.		
Key Vocabulary glossary, dictionary, reference, digital, icon, Google search	Links to Prior Learning <ul style="list-style-type: none"> Students have used context at the sentence level as a clue to the meaning of a word or phrase (2.L.4a). They also have used word meaning clues from common compound words (2.L.4d). Students have categorized words according to their use (e.g., foods that are <i>spicy</i> or <i>juicy</i>) (2.L.5a, 2.L.5b). They have distinguished shades of meaning between closely related verbs and adjectives (e.g., toss, throw, hurl; thin, slender, skinny). 	Links to Future Learning <ul style="list-style-type: none"> Students will use context clues, grade-appropriate Greek and Latin affixes and roots, dictionaries, glossaries, and thesauruses (4.L.4). Students will demonstrate an understanding of figurative language (e.g., metaphors, similes, idioms, adages, proverbs) (4.L.5).

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Instructional Strategies (EL, SIOP, SPED, Marzano)

- Provide anchor charts or posters as a visual resource for reminding students how to clarify unknown words (3.L.4a).
Example:
 1. Use sentences around the unknown word as a clue.
 2. Use illustrations provided.
 3. Use word parts (prefixes, suffixes, roots).
 4. Use glossary in the back of the book.
 5. Use a dictionary.
- Provide word analogies to establish relationships between words for students to complete using familiar words. This works well using vocabulary words too (3.L.5b).
Examples:

<u>duck</u>	is to	<u>pond</u>	as	<u>owl</u>	is to	___(tree branch)	<i>Answer rationale—birds to what they might sit on</i>
<u>bike</u>	is to	<u>bicycle</u>	as	___ (TV)	is to	<u>television</u>	<i>Answer rationale—abbreviations to formal term</i>
___ (suit or gown)	is to	<u>clothes</u>	as	<u>banquet</u>	is to	<u>meal</u>	<i>Answer rationale—formal to general category</i>
- Provide words on index cards for students to work in pairs or small groups to place in order from one intensity to another (e.g., hot-cold, fragrant-odorous, brave-coward). They work in pairs or small groups because you want them to discuss the nuances of each word and its placement on its continuum (3.L.5b).
- Play “Alphabetizing Rodeo”: Students create lists of 5 or more words (e.g., spelling words, vocabulary words) to trade with peers. The words are to be placed in alphabetical order. Students would need to provide a correct answer sheet with their list. The amount of time to correctly complete the activity is the score. Lowest score wins. Rules (rubrics) can be established (e.g., lists contain all the same initial letter or first two letters) (3.L.4d).

Resources & Links to Technology

- <http://superteacherworksheets.com/analogies.html> analogy worksheets for students
- Houghton Mifflin Third Grade English, Tools and Tips, Using a Dictionary, p. H16
- Houghton Mifflin Third Grade Spelling and Vocabulary, How to Use a Dictionary, p. 286
- Houghton Mifflin Third Grade Spelling and Vocabulary, Using the Thesaurus, pp. 256–263

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 4: Students will create different genres by transforming ideas into a finished publication using a writing process.</p>	<p>Essential Question(s): What are some examples of different genres of writing? How might authors collect/organize their thoughts when writing a book? What important steps are involved in the “writing process”?</p>
<p>Standards:</p> <p>3.RI.9 Compare and contrast the most important points and key details presented in two texts on the same topic.</p> <p>3.W.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.</p> <p>3.W.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.)</p> <p>3.W.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.</p> <p>3.W.7 Conduct short research projects that build knowledge about a topic.</p> <p>3.W.8 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>3.W.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.</p>	
<p>Elements of the Standard(s) – What’s the meaning? Students are polishing their different writings (e.g., opinion, informational, narrative) to bring to publication. They may have had different assignments throughout the year that they’ve collected to now further develop, edit, and revise (3.W.4). They may have assistance in using technology (3.W.6) to conduct research for developing a topic (3.W.7). Students will need to have methods for taking notes from sources and be able to organize the information into categories (3.W.8). Students can compare and contrast major points presented in texts on the same topic, selecting the information that they want to incorporate into their research (3.RI.9). Then with established classroom systems for students to work in pairs or small groups, students can peer review papers providing feedback for revisions that will strengthen their writing (3.W.5). The peer-review teams will focus on 1 or 2 elements at a time (e.g., subject-verb agreement, transitional words, spelling, or overused words). Have students working on their projects over extended time so that they are able to research and reflect before revisions. Collecting writing projects over the year will provide students with a variety of products to develop (3.W.10).</p>	

Italic Information: Recursive standard – repeated in at least one other quarter

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<p>Key Vocabulary genre, topic, plot, peer review, reflect, revise, publish, publication, writing process</p>	<p>Links to Prior Learning</p> <ul style="list-style-type: none"> Students have participated in similar writing but with substantial guidance and support from adults (2.W.4, 2.W.5, 2.W.6, 2.W.7). Students have previously recalled information from sources to answer a question (2.W.8). 	<p>Links to Future Learning</p> <ul style="list-style-type: none"> Students will conduct a short research project that builds knowledge through investigation of different aspects of a topic. They will use the writing process to edit, revise rewriting, and publish different genres of writing (4.W.4, 4.W.5, 4.W.7). Students will demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting (4.W.6).
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none"> Display anchor charts or posters with examples of the writing process for students to reference. As they work on each stage/step of the itemized writing process with their paper, they can clip (clothes pin with their name on it) their name on the stage that they are working on. This will be a visual reminder to you where each student is working (3.W.4, 3.W.5). Display different graphic organizers with examples of their purpose (e.g., cause and effect, sequence, problem/solution, main idea and supporting details) as a means for students taking notes from different sources as they research their topic (3.W.8). Have students in pairs or small groups take notes on peer presentations. Have them share and compare their information for accuracy (3.W.8). Have students draw cards that indicate what type of genre they will provide (3.W.4, 3.W.7). Provide modeling (completing while thinking aloud) for using a T-chart to compare and contrast major points provided in two texts on the same topic (3.RI.9). Have students collect their writing in a notebook over the course of the year to show growth and development (3.W.10). Have students draw 3 cards that indicate genre, purpose, and audience in which they will compose a writing piece (3.W.10). For example: <u>Genre</u>: invitation; <u>Purpose</u>: Thanksgiving dinner; <u>Audience</u>: to the farmer from the turkey 		
<p>Resources & Links to Technology:</p> <ul style="list-style-type: none"> http://www.corestandards.org/ELA-Literacy Appendix B: grade-level reading text suggestions http://www.corestandards.org/ELA-Literacy Appendix C: grade-level writing samples with annotation Houghton Mifflin Third Grade English, Getting Started, The Writing Process, pp. 7–27 Houghton Mifflin Third Grade English, U.7–U.12 (different genre of writing) Houghton Mifflin Third Grade English, Tools and Tips, Computers and the Writing Process, pp. H35–H38 		

Italic Information: Recursive standard – repeated in at least one other quarter

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Big Idea 3, Quarter 4: Students will compare and contrast different literary elements written by the same author about the same or similar characters (e.g., in books from a series).		Essential Question(s): What are similarities and differences between genre types? How are context clues used throughout different genres? What are different styles of writing?
Standards: 3.RL.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). 3.RL.10 By the end of the year, <u>read and comprehend</u> literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently. 3.RI.8 <i>Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).</i> 3.RF.4c Read with sufficient accuracy and fluency to support comprehension: Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 3.L.4b-c <i>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies: b) Determine the meaning of a 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).</i>		
Elements of the Standard(s) – What’s the meaning? Students will compare and contrast elements in stories written by the same author. Many teachers refer to this as an “author study.” Using graphic organizers will visually support students as they describe the different elements (3.RL.9, 3.RL.10). When reading informational text, students will be able to describe the structure based on the connection between sentences and paragraphs (e.g., comparison, cause/effect, sequence) (3.RI.8). As they determine the structure, students will also use context to confirm or self-correct word recognition, or work knowledge (e.g., affixes, root words). To maintain fluency for comprehension, they often will reread the passage (3.L.4b, c, 3.RF.4c).		
Key Vocabulary author study, text structure, self-correct, root word, affixes	Links to Prior Learning <ul style="list-style-type: none"> Students have compared and contrasted two or more versions of the same story by different authors (2.RL.9). They have also been exposed to different genres of literature and 	Links to Future Learning <ul style="list-style-type: none"> Students will be able to compare and contrast similar themes and topics or patterns of events in stories, myths, dramas, poetry, and traditional literature from different cultures (4.RL.9, 3.RL.10). Students will continue to determine or clarify

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

	<p>poetry (2.RL.10).</p> <ul style="list-style-type: none">• They have used grade-level context, simple prefixes, and root word knowledge to confirm or self-correct word recognition and understanding, rereading as necessary (2.RF.4, 2.L.4b, c).	<p>and self-correct unknown words and phrases using multiple strategies (e.g., root words, affixes, Greek or Latin roots, dictionaries, glossaries) (4.RF.4, 4.L.4b, c).</p>																				
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none">• Provide a table in which students can complete as they read different stories by the same author. This can be divided into small groups, each reading one of the stories and sharing their findings (3.RL.9, 3.RL.10). The whole class can discuss the completed table. <table><tr><td>Author:</td><td>Theme</td><td>Setting</td><td>Characters</td><td>conflict</td></tr><tr><td>Story One:</td><td></td><td></td><td></td><td></td></tr><tr><td>Story Two:</td><td></td><td></td><td></td><td></td></tr><tr><td>Story Three:</td><td></td><td></td><td></td><td></td></tr></table> <ul style="list-style-type: none">• Students in pairs or small groups continue to read stories, dramas, and poetry with their peers (3.RL.10). Changing groupings freshens up the motivation in reading.• Students in pairs or small groups will draw cards from 3 different piles (e.g., Prefixes, Suffixes, Root Word) to make new words. They will write the new words in their writing journal, highlighting the prefix in one color, the root word in another color, and the suffix in a third color.			Author:	Theme	Setting	Characters	conflict	Story One:					Story Two:					Story Three:				
Author:	Theme	Setting	Characters	conflict																		
Story One:																						
Story Two:																						
Story Three:																						
<p>Resources & Links to Technology</p> <ul style="list-style-type: none">• http://www.corestandards.org/ELA-Literacy Appendix B: grade-level reading text suggestions• Houghton Mifflin Third Grade Reading, Theme 4, Read and Compare, pp. 100, 252• Houghton Mifflin Third Grade Reading, Theme 5, Focus on Genre: Fairytales, Cinderella, and Yeh-Shen: A Cinderella Story from China, pp. 270–294• Houghton Mifflin Third Grade Reading, Theme 6, Ramon Quimby, Age 8 and Henry and Ramona, pp. 370–399 (compare stories by same author)																						

Italic Information: Recursive standard – repeated in at least one other quarter

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Big Idea 3, Quarter 4: Students will create oral presentations from their own writing and research.		Essential Question(s): How does a speaker best address an audience? What is the role of a listener in an oral presentation? How are oral presentations important in our society?
Standards: 3.RI.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. 3.SL.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. 3.SL.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. 3.SL.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 28 for specific expectations.)		
Elements of the Standard(s) – What’s the meaning? Students will be orally presenting topics clearly using descriptive details or facts using complete sentences (3.SL. 4, 3.SL.6). With established procedures for working in pairs or small groups, students can practice presenting (e.g., volume, pacing, and clarity) or provide feedback (3.SL.4). They will also provide a presentation in which they include audio recordings and visual displays to enhance certain facts or details (3.SL.5). These presentations can include material or topics from grade-level history, social studies, science, and technical texts as well (3.RI.10).		
Key Vocabulary presenting, norms, pacing, posture, volume, audio recording	Links to Prior Learning <ul style="list-style-type: none"> Students have told stories or recounted experiences with facts and details using complete sentences (2.SL.4, 2.SL.6). Students created audio recordings of stories or poems and included drawings to clarify ideas or feelings (2.SL.5). 	Links to Future Learning <ul style="list-style-type: none"> Students will orally present topics or experiences using grade-level vocabulary, simple and complex sentences, descriptive details or facts in an appropriate sequence (4.SL.4, 4.SL.6). Students will add audio recordings and visual displays to their presentations (4.SL.5).

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Instructional Strategies (EL, SIOP, SPED, Marzano)

- Students in pairs or small groups create posters on ‘norms’ or students’ behaviors as listeners during an oral presentation. The class can vote to display the one or two posters that best represent the feeling of the class. These norms will be reviewed prior to any oral presentation (3.SL.4).
- Students in pairs or small groups can experiment with background music as they read a poem. Feedback from a listener(s) is important to selecting and creating the appropriate mood (3.SL.5).
- Students in pairs or small groups can audiotape reading stories or reports for students who may be absent (3.SL.5).
- Students rehearse oral presentations in pairs or small groups. Each listener can provide feedback for a different focus (e.g., pacing, complete sentences, visual displays, volume, or clarity). Procedures for constructive feedback need to be displayed (3.SL.4, 3.SL.6).

Resources & Links to Technology

- <http://www.corestandards.org/ELA-Literacy> Appendix B: grade-level reading text suggestions
- Houghton Mifflin Third Grade English, Tools and Tips, Using Visuals and Making an Electronic Multimedia Project, pp. H24, H41

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized



Content: English	Grade/Course: Three	Timeline: Reading: 90 minutes
Standard(s): 3.RL.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RL.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. 3.RL.3 Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events. 3.SL.1d 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: Explain their own ideas and understanding in light of the discussion.		
Lesson Overview: Students will understand how an author uses characters in fictional text (i.e. fables, folktales, and myths) to contribute to events and deliver a central message.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">Determine an author's message (theme of the story)Explain how character traits help tell the central message. (Ex: the spider is impolite but doesn't like it when he is treated in the same manner.)
Vocabulary: Posted for visual support: fable, central message, theme, trickster, fool		Focus Question(s): How do key details about a character help determine the central theme?
Description of Lesson (including instructional strategies): Prior Learning: (posted with pictures for visual support) <ul style="list-style-type: none">Structures and procedures for collaborative discussions and reading (partners and small groups)Elements of a fableDefinition of a root wordHow to determine character traits Anticipatory Set: <u>Prompt discussions between student partners with questions:</u> <ol style="list-style-type: none">What root word do you hear in "trickster?"Have you ever played a trick on someone?Have you ever had a trick played on you? Say: "One type of folktale handed down in cultures is the trickster tale. Today we will read one." Instruction and Strategies: Provide purposeful reading focus by reading and posting (visual support) the following questions for students to refer to while <u>they partner-read</u> : <ol style="list-style-type: none">Who is the trickster?Who is the fool who gets tricked? Support your answer with story text.What was the problem in the story? Support your answer with story text.How did the trick solve the problem? Support your answer with story text.		

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5. What is the message of the story?
6. Why do you think this story has been told for hundreds of years?

Guided Practice:

Students whisper-read with their partners “The Hungry Spider” then discuss the questions while you actively monitors participation and understanding.

After reading the tale:

- Students will collaborate to answer in writing in their writing journals or separate sheets of paper for the questions posted above.
- Complete a graphic organizer (Marzano) of character traits on the turtle and the spider from this text. Students should be able to provide the page number of where the specific character trait is found. An example:

<i>Turtle</i>	<i>Spider</i>
Spoke politely (pp. 283, 284, and 285)	Always hungry (p. 282)
Considerate of others (p. 284)	Greedy (p.282)
Clever (inferred p. 286)	Liked to talk with strangers (p. 282)
	Spoke politely (p. 283)

Formative Assessment:

Monitor the class to check students’ graphic organizer for accuracy. You can also use popsicle sticks to draw student names to share responses to the reading questions. Pair-share can be used for students to compare/discuss details from their graphic organizers.

Closure:

Provide a question prompt for student discussion (with partners or small groups): How do key details about a character help determine the central theme? (focus question)

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- Students who need additional support with reading will chorally read with you in small groups.
- Students may write their own fable with a central message.
- Students may draw a suggested central message/theme from a can, bag, or bowl and orally (or in writing) develop a fable around it.

Resources (Textbook and Supplemental):

- “The Hungry Spider” pp. 282 – 287. Houghton Mifflin.
- Trickster Tales pp. 280 – 299, Houghton Mifflin (“Rabbit Races with Turtle”, “Aunt Fox and the Fried Fish”)
- Post reading focus comprehension questions 1-6 in Strategies section.
- Post vocabulary words.

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Content: English	Grade/Course: Three	Timeline: 60 minutes Integrated Reading & Writing
Standard(s): 3.W.1b Write opinion pieces on topics or texts, supporting a point of view with reasons: Provide reasons that support the opinion. 3.SL.1c 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: Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.		
Lesson Overview: Students will write supported opinion pieces by using evidence from text and personal experiences. This lesson will also integrate the use of graphic organizers to chart textual evidence.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">Write opinion pieces by using evidence from text.
Vocabulary: Animation, animator, illustration, illustrator, career, talent		Focus Question(s): Why is it important to back up your answers with evidence?
Description of Lesson (including instructional strategies): Prior to instruction: <ul style="list-style-type: none">Review expectations for collaborative/team work from students (e.g., body posture for listening, examples of feedback, examples of building on others’ ideas, making sure all participate in discussion)Review student-partner reading expectations. Anticipatory Set: (5 minutes) <ul style="list-style-type: none"><i>Provide prompts for discussions between student partners: “Tell your partner something that you are good at doing that you enjoy. Discuss what kind of paying work or profession you could do as an adult with this activity. For example, if you love swimming, you could work as a public beach life guard or in emergency services for water-rescue as an adult.”</i>Optional: post/display some ideas for visual support (e.g. swimming = public beach life guard; hiking and camping = forest ranger; reading a variety of books = librarian)“Today, we’re going to read about someone who used a talent that he had when he was young to build a career. Turn to ‘Bill Melendez, An Artist in Motion,’ pp. 128–133 in Houghton Mifflin third grade reading book.” Instruction and Strategies: Reading and Comprehension (20 minutes) <ul style="list-style-type: none">Direct <i>students to partner-read</i> pp. 128–133 in Houghton Mifflin Reading: “Bill Melendez, An Artist in Motion.” <u>Monitor the class to check for pronunciation/fluency. Or have a small group of struggling readers close to help as needed.</u><u>When students have finished reading, they take turns summarizing each page of the text.</u> “This page was about...” The listener adds any information that was left out. (Marzano: Cooperative Learning) Guided Practice: Preparing for Writing (15 minutes) <ul style="list-style-type: none">Model a couple examples for completing a graphic organizer for author’s opinion regarding being an		

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artist. (See attached supplemental resource).

- *Students work as partners to complete a graphic organizer* for author's opinion regarding being an artist. (See supplemental resources) (Marzano: Advanced Organizer)
- Display the graphic organizer answer sheet (visual support) as students edit and revise their notes.

Writing: (20 minutes)

- Model opinion writing on the board (document camera or overhead projector). Think aloud while writing so students understand how to line up evidence/support for the opening opinion.

Example:

Being an artist as a career interests me because **(opening sentence)**

(1st evidence:) I have always enjoyed drawing different pictures.

(2nd evidence:) Creating drawings on the computer has been a skill that I have been working on improving for my stories. So having a career as an artist or illustrator **(closing statement)** would be a good choice for me.

- Point out that each sentence begins differently (rather than a series of: "I think..." or "I am...")
- Point out how referring to the graphic organizer helped develop supporting evidence in this writing.
- Point out that the closing sentence is the first sentence re-worded.
- Provide writing prompt for students to draft an opinion:
 - Being an artist as a career would interest me because...
 - Being an artist as a career would not interest me because...
- Students write a short opinion paper with two supporting ideas.
- As students finish, they exchange papers with peers to check for spelling, punctuation and various sentence starters.
- Optional: Students could finish the assignment as homework.

Formative Assessment:

- Students read their papers to peers for feedback. Monitor students to correct/support any feedback and collect to provide additional feedback.

Closure:

- *Provide prompt for student discussion in pairs or small groups: "Why is it important to back up your answers or writing with evidence?" (to provide the reader/listener with logical reasoning)*

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- The writing portion of this lesson could be carried over to the next day if necessary.
- Student who struggle can work in small group directly with the teacher.
- Students who need more challenge could provide more supporting evidence.
- Students who need more challenge could write their opinion on a different type of career/position.

Resources (Textbook and Supplemental):

- Houghton Mifflin Third Grade Reading, "Bill Melendez, An Artist in Motion", by S. Berman, pp. 128–133
- Graphic organizer (see supplemental page)

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- Student journals/writing paper
- Chart paper for large graphic organizer (document camera or overhead projector)

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Bill Melendez, An Artist in Motion			
Teacher's Answer Copy			
The Fun...	Page Number	The Difficulty...	Page Number
"As a boy, he doodled on every scrap of paper he could find."	p. 128	"...had to draw, draw, draw, all day long."	p. 129
"He loved it."	p. 129	Each drawing is a little bit different from the one before it.	p. 130
Today, many animators use computers.	p. 130	Every drawing had to be created by hand.	p. 130
"...with a light and fun touch, you can create the feeling that these are real people."	p. 130		
"Likes working with other people ..."	p. 133	"...does not like "drawing by himself".	p. 133
"At the studio there's a team of us, a whole bunch of people laughing over this and that, giving each other feedback. It makes work fun and easier."	p. 133	"Animation is always hard work."	p. 133
"The best animation does what can't be done in live action, - nothing is impossible in animation."	p. 133		
Bill Melendez, An Artist in Motion			
Student Copy:			
The Fun...	Page Number	The Difficulty...	Page Number

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Content: ELA	Grade/Course: Three	Timeline: Day 3 (90 minutes)
Standard(s): 3.RL.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RF.4a Read with sufficient accuracy and fluency to support comprehension: Read on-level text with purpose and understanding.		
Lesson Overview: This is the third day in a series of reading lessons on The Ballad of Mulan. This lesson is designed to formatively assess whether or not students are able to independently cite evidence from the text. This lesson should be conducted after both the story and vocabulary have been read and reviewed. You have already modeled how to correctly cite evidence from the text.	Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">• Show answers for questions in the text.• Cite evidence from the text to answer questions.	
Vocabulary: comrades, endured, triumphant, victorious, bridle, frail, troops, sorrowful, armor, farewell	Focus Question(s): <ul style="list-style-type: none">• What types of questions help clarify information in a text?• What does a reader need to do in order to comprehend what they are reading?	
Description of Lesson (including instructional strategies): Prior to this lesson: <ul style="list-style-type: none">• Students know/internalized vocabulary.• Students have read the story twice.• Students should know the characters, plot (sequence of events), and problem. Day 3: <u>Review the sequence of events by retelling the story.</u> Anticipatory Set: Comprehension (5 minutes): <ul style="list-style-type: none">• Paired students preview all questions.• <i><u>As pairs, students will answer a sample question and cite from the text.</u></i> Instruction and Strategies: (30 minutes) <ul style="list-style-type: none">• Distribute highlighters, sticky notes, and questionnaires.• Students will locate the story after reviewing all questions.• Students will cite from the text and highlight answers for each question. Guided Practice: Comprehension (30 minutes):		

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- *Students will work in pairs to read the questionnaire (Marzano: Cooperative Learning).*
- Students will reread all previewed questions.
- Students will locate explicit answers to questions (Core Six: Reading for Meaning).
- *Students will work in pairs to cut passage strips.*
- *Paired students will work collaboratively to match questions and answers before pasting (Core Six: Circle of knowledge).*

Formative Assessment:

Review completed journals to determine if students were able to cite explicit answers to questions about the text. **Completed Journals**

Closure:

In a Think, Pair, Share, students will discuss the following questions:

- **What strategy did you use to help you better understand the story?**
- **Would you use this strategy for any reading passage?**

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

Cooperative learning:

- Small group instruction to restate expectations and desired outcome
- Reduce number of questions specified by the teacher.

Resources (Textbook and Supplemental):

- Houghton Mifflin Reading 3.1
- Houghton Mifflin Reading: Intervention Strategies for Extra Support (LV3)
- Houghton Mifflin Reading: Instructional Strategies for English Language Learners (LV3)

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The Ballad of Mulan

(Text from the Passage)

<p>Suddenly, the sound of weaving changed to sorrowful sighs. “But Father is old and frail,” Mulan sighed. “How can he fight? He has no grown son and I have no elder brother.”</p>
<p>“What troubles you?” her mother asked. “Nothing, Mother,” Mulan softly replied.</p>
<p>“Invaders are attacking. The Emperor is calling for troops. Last night, I saw the draft poster and twelve scrolls of names in the market. Father’s name is on every one.”</p>
<p>“I will go to the market. I shall buy a saddle and a horse. I must fight in Father’s place.”</p>
<p>Mulan’s glory spread through the land. And to this day, we sing of this brave woman who loved her family and served her country, asking for nothing in return.</p>
<p>“How could we have fought side by side with you for ten years and not have known you were a woman!”</p>
<p>By nightfall she was camped by the bank of the Yellow River. She thought she heard her mother calling her name.</p>

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Directions: Cut and paste two questions per journal page.

Why is the Emperor calling for troops?
How does the author show that Mulan was admired for what she did?
Who is responsible for the troops going to war?
When did the soldiers find out that Mulan was a woman?
What is Mulan's heart's desire? Why does she want it?
How does the author show that Mulan is homesick?
Who does the emperor send to escort Mulan home?

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Content: ELA	Grade/Course: Three	Timeline: 75 minutes
Standard(s): 3.L.4a Determine or clarify the meaning of unknown and multiple-meaning words 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. 3.L.4d Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies: Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.		
Lesson Overview: This is an introductory lesson (Day 1) to the theme “Voyager.” To identify real-life connections between words and their use, students will clarify unknown and multiple-meaning words using a range of strategies.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">• Identify the meaning of a word or phrase in text by using the words correctly 8 out of 10 times.• Clarify word meanings and key phrases using context clues, glossaries, and dictionaries, both print and digital.
Vocabulary: clarify, journey, cramped, settlement, identify, seeping, weary, context clues, anchor, survive		Focus Question(s): <ul style="list-style-type: none">• How can we use context clues to determine meanings of unfamiliar words?• How can using context clues be useful during independent reading?
Description of Lesson (including instructional strategies): Prior to the lesson, review established procedures: <ul style="list-style-type: none">• Peer collaboration and discussions (listening to others, speaking one at a time, staying on topic)• Graphic organizer (Kuzmich: 2013 Semantic Feature Note-Taker)• Think, Pair, Share strategy (Marzano: Cooperative Learning) Anticipatory Set: (10 minutes) <ul style="list-style-type: none">• <i>Play a Corners activity of Magellan’s voyage to Guam</i> (See attached).• State: “Today we will read a story on Ferdinand Magellan’s journey. Pay close attention to the word choices he uses regarding his journey.” Instruction and Strategies: (20 minutes) <ul style="list-style-type: none">• Discuss with the class that some words have multiple meanings. Use the words: can, block, and will to explain and give an example of multiple-meaning words.• Ask the class, “Who can give me a word that has multiple meanings?”• Write the vocabulary words from the vocabulary box above on the board.• Explain to students that they will be listening to the story <i>Journey of the Pilgrims</i>. (Houghton Mifflin Reading pp. 154–155).• Tell students to carefully listen to how the vocabulary words written on the board are used in the story.		

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- *Have students use the Think, Pair, Share strategy to discuss how the words were used in the story with each other.*

Guided Practice: (15 minutes)

- Direct students to complete their Semantic Note-Taker in their journals (See Semantic Note-Taker attached).
- Monitor students and give feedback as they complete their Semantic Note-Taker.

Formative Assessment: (20 minutes)

- Tell students, “Let’s play Word Jeopardy!” (See Jeopardy Game Directions attached.)

Closure: (10 minutes)

- Use the Exit Slip to check for understanding.
- Ask students, “What is one word that we learned today that has multiple meanings?”

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- For struggling students, use simpler directions, provide pictures, and use actions to express meanings of words.
- For higher achievers, role-play Magellan’s voyage.

Resources (Textbook and Supplemental):

- Houghton Mifflin Teacher Edition Book, Theme 5.
- Student journals
- Wikipedia Web site

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Anticipatory SetMagellan's Journey

- Ask the question, "What was Magellan's route to Guam?" (Core Six Circle of Knowledge)
- Read a short passage about Magellan's journey.
http://en.wikipedia.org/wiki/Ferdinand_Magellan
- Restate the oceans Magellan crossed.
- Lead students in a review about Magellan's route.
- Students will use the Think, Pair, Share strategy to discuss how they think Magellan docked on Guam.
- Direct students' attention to the four corners of the classroom, which will be labeled with the names of the four oceans (Atlantic, Pacific, Indian, and Arctic).
- Tell students to go to the corner of the ocean where they think Magellan's journey began (correct answer: Atlantic).
- Ask students to defend their choice of corner.
- Ask an exit question, "Where did his journey end?"

(Have students return to their desks.)

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Semantic Note-Taker

Journey of the Pilgrims

Word	Draw a Picture	Definition	Does the word have multiple meanings? (Yes or No)	Write a sentence using the word.

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Jeopardy Game

Directions:

- Write categories and points on separate sticky notes. Place on board in columns by category with points underneath.

Example: Definitions

Scrambled Words

100

100

200

200

300

300

400

400

500

500

- Organize students into three groups (establish an A, B, C group).
- In a single file line, the first child in each group will choose a question to answer. Starting in group A, the first child chooses a question. If he or she answers correctly, then that group gets the points. If the answer is incorrect, the next group gets the chance to answer the question.
- After one student answers the question, then that student goes to the end of the line. Then, the next student in line gets a turn. (Continue this process until all questions are answered.)

Here are the categories:

Definitions: Children must answer in a question form, the vocabulary word for the given definitions.

Scrambled words: Children will unscramble the vocabulary words.

Passages: Children must repeat the selected sentences within the correct vocabulary word that matches the underlined word.

Everything in Place: Children use context clues to complete the analogies.

Instructions that are italicized include student engagement strategies.

Instructions that are underlined embed checking for understanding.

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Definitions	Scrambled Words	Passages	Everything in Place
100 Answer: A long trip. Question: "What is a journey?"	100 Answer: Vivsure Question: "What is survive?"	100 Answer: The people did not <u>stay</u> <u>alive</u> on the ship. Question: "What is survive?"	100 Answer: Airplane has wings as a ship has a _____. Question: "What is an anchor?"
200 Answer: To remain alive. Question: "What is survive?"	200 Answer: horanc Question: "What is anchor?"	200 Answer: We were off on a <u>trip</u> to an unknown land. Question: "What is journey?"	200 Answer: Burning is to fire as oozing is to _____. Question: "What is seeping?"
300 Answer: A ship's heavy metal hook. Question: "What is an anchor?"	300 Answer: peeinging Question: "What is seeping?"	300 Answer: Water <u>leaking in</u> from above. Question: "What is seeping?"	300 Answer: Rude is to polite as dead is to _____. Question: "What is survive?"
400 Answer: Tired; needing rest. Question: "What is weary?"	400 Answer: neyjour Question: "What is journey?"	400 Answer: One afternoon the <u>tired</u> man returned with good news. Question: "What is weary?"	400 Answer: Jumping is to exercise as tired is to _____. Question: "What is weary?"
500 Answer: Slowly leaking; oozing. Question: "What is seeping?"	500 Answer: aeryw Question: "What is weary?"	500 Answer: I stood next to my father as the <u>heavy metal</u> <u>hook</u> was pulled up from the sea. Question: "What is anchor?"	500 Answer: Frog is to tadpole as destination is to _____. Question: "What is journey?"

Instructions that are italicized include student engagement strategies.

Instructions that are underlined embed checking for understanding.

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Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
3.OA.1	Interpret products of whole numbers, e.g., interpret 5×7 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 5×7.</i>	3.2.1 Develop an initial understanding of multiplication as repeated addition (e.g., $3 \times 5 = 5 + 5 + 5$) or as equal groupings (e.g., 3×5 as 3 groups of 5) and of division as the number of equal groupings (e.g., $15 \div 5$ as the number of groups of 5 we can make with 15).	Partial: CCSS implies the need for multiplication in context as well and addresses division as a separate issue in 3.OA.2. GDOE references multiplication as repeated addition while CCSS does not.	-Identify multiplication as repeated addition	(5) Interpret problem as multiplication
3.OA.2	Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ 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 $56 \div 8$.</i>	3.2.1 Develop an initial understanding of multiplication as repeated addition (e.g., $3 \times 5 = 5 + 5 + 5$) or as equal groupings (e.g., 3×5 as 3 groups of 5) and of division as the number of equal groupings (e.g., $15 \div 5$ as the number of groups of 5 we can make with 15).	Partial: CCSS implies the need for division in context as well and addresses multiplication as a separate issue in 3.OA.1.	N/A	(14) Division of equal groups

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
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.	3.2.1 Develop an initial understanding of multiplication as repeated addition (e.g., $3 \times 5 = 5 + 5 + 5$) or as equal groupings (e.g., 3×5 as 3 groups of 5) and of division as the number of equal groupings (e.g., $15 \div 5$ as the number of groups of 5 we can make with 15).	Partial: CCSS implies the need for context in solving word problems and limits multiplication and division within 100. It includes word problems with arrays (rows) and includes the concept of using "unknown number" (e.g. X or ?)for multiplication and division.	-Multiplication facts in context -Division facts in context -Multiplication of whole numbers in context -Solve problems using appropriate strategies -Solve problems using no routine strategies	(6, 7, 8) Multiplication and division in context
3.OA.4	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 $8 \times ? = 48$, $5 = \square \div 3$, $6 \times 6 = ?$.</i>	N/A	N/A	-Identify missing information necessary to solve problems -Identify the effect of an operation	(24) Correct equation for a problem in context
3.OA.5	Apply properties of operations as strategies to multiply and divide. <i>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 $8 \times$</i>	4.2.1 Understand and use the distributive law to simplify number expressions (e.g., $3(4 + 5) = 3 \times 4 + 3 \times 5$ and $5(8 - 6) = 5 \times 8 - 5 \times 6$).	Partial: The GDOE standard only addresses one field property.	-Identify and use field properties of addition and multiplication	N/A

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	$7 \text{ as } 8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56. \text{ (Distributive property)}$				
3.OA.6	<p>Understand division as an unknown-factor problem. <i>For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.</i></p> <p><i>NOTE: Students need not use formal terms for these properties.</i></p>	<p>2.2.2 Understand the effects of multiplying and dividing whole numbers and recognize situations where these operations might arise (e.g., equal sharing).</p> <p>3.2.1 Develop an initial understanding of multiplication as repeated addition (e.g., $3 \times 5 = 5 + 5 + 5$) or as equal groupings (e.g., 3×5 as 3 groups of 5) and of division as the number of equal groupings (e.g., $15 \div 5$ as the number of groups of 5 we can make with 15).</p> <p>3.4.1 Identify, create, describe, extend, and make generalizations about patterns that involve multiplication or division.</p>	<p>Partial: GDOE does not explicitly state the understanding of division as an unknown factor problem; it uses the terminology <i>equal grouping</i> and <i>equal sharing</i>.</p> <p>CCSS implies that multiplication and division are inverse operations and that understanding can be used to find the unknown.</p>	<p>-Multiplication of whole numbers using symbolic notation</p> <p>-Division of whole numbers using symbolic notation</p> <p>-Identify missing information necessary to solve problems</p>	N/A
3.OA.7	<p>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.</p>	<p>3.3.1 Know the multiplication tables up to 10 and commit them to memory.</p> <p>3.4.1 Identify, create, describe, extend, and make generalizations about patterns that involve multiplication or division.</p>	Aligned	<p>-Multiplication of whole numbers using symbolic notation</p> <p>-Division of whole numbers using symbolic notation</p>	(9, 15, 16, 19) Multiplication and division in symbolic notation

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
3.OA.8	<p>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.</p> <p><i>NOTE: 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 (Order of Operations).</i></p>	<p>2.6.2 Write equations to solve single- and multi-step word problems.</p> <p>3.3.2 Add and subtract 3-digit whole numbers with and without regrouping.</p> <p>3.6.1 Identify, describe, and represent (e.g., as expressions or equations) quantitative relationships in real life or problem situations.</p> <p>4.5.1 Represent an unknown number in simple expressions, equations, or inequalities using letters, boxes, or other symbols.</p>	<p>Partial: In GDOE 2.6.2, it is not clear what <i>multi-step</i> implies. CCSS specifically states two-step word problems using a variable to represent the unknown quantity. It is explicitly stated in CCSS that when students solve word problems, they assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p>	<p>-Addition of whole numbers in context</p> <p>-Subtraction of whole numbers in context</p> <p>-Multiplication of whole numbers in context</p> <p>-Division of whole numbers in context</p> <p>-Solve simple algebraic equations</p> <p>-Solve problems using appropriate strategies</p> <p>-Solve problems using no routine strategies</p>	(11) A two-step problem that can be solved with addition and subtraction
3.OA.9	<p>Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. <i>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.</i></p>	<p>2.4.1 Identify, create, extend, and give a rule for number patterns involving addition and subtraction.</p> <p>3.4.1 Identify, create, describe, extend, and make generalizations about patterns that involve multiplication or division.</p>	<p>Partial: GDOE is not clear on which patterns and rules need formulating.</p>	<p>-Identify multiplication as repeated addition</p> <p>-Extend a numerical pattern</p>	(10, 13) Patterns of numbers in charts
3.NBT.1	<p>Use place value understanding to round whole numbers to the</p>	<p>3.1.2 Identify and interpret place value in whole numbers</p>	<p>Partial: GDOE 3.1.2 takes place value through 10,000</p>	<p>-Solve problems involving</p>	N/A

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	nearest 10 or 100. <i>NOTE: A range of algorithms may be used.</i>	up to 10,000 and in numbers with one decimal place. 4.1.8 Round whole numbers to the nearest tens, hundreds, or thousands.	and with one decimal place. GDOE 4.1.8 covers rounding, but includes thousands. Place value rounding to 100 specifically is omitted with GDOE and required for CCSS Grade 3.	rounding concepts	
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. <i>NOTE: A range of algorithms may be used.</i>	2.3.1 Add and subtract two 2-digit whole numbers with and without regrouping. 2.3.2 Master a variety of strategies for addition and subtraction of whole numbers (e.g., objects, abacus, calculators, estimation, mental math strategies) besides paper and pencil calculations. 3.3.2 Add and subtract 3-digit whole numbers with and without regrouping.	Partial: GDOE's strategies focus more on modeling in other ways than on an emphasis of place value, properties of operations, and relationships between addition and subtraction with numbers to 1,000. CCSS is explicitly about fluency of addition and subtraction facts to 1,000 using a variety of strategies.	-Addition of whole numbers using symbolic notation -Subtraction of whole numbers using symbolic notation	N/A
3.NBT.3	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations. <i>NOTE: A range of algorithms may be used.</i>	N/A	N/A	N/A	N/A
3.NF.1	Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as	2.1.7 Recognize fractions as parts of a whole or parts of a set of objects up to 12 parts (i.e., $\frac{1}{2}$ to $\frac{1}{12}$).	Partial: CCSS implies a deeper understanding of fractions and ways of representing fractions.	-Match pictorial models to fraction names and notation	(4) Naming denominators

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	the quantity formed by a parts of size $1/b$. <i>NOTE: Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.</i>	3.1.5 Identify and use correct names for numerators and denominators			
3.NF.2a	Understand a fraction as a number on the number line; represent fractions on a number line diagram: 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. <i>NOTE: Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.</i>	2.1.7 Recognize fractions as parts of a whole or parts of a set of objects up to 12 parts (i.e., $\frac{1}{2}$ to $\frac{1}{12}$).	Partial: GDOE makes no reference for use of number lines; CCSS is weighted in using numbers lines for many of their grade-level standards.	-Identify fractions on a number line	N/A
3.NF.2b	Understand a fraction as a number on the number line; represent fractions on a number line diagram: 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. <i>NOTE: Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.</i>	2.1.7 Recognize fractions as parts of a whole or parts of a set of objects up to 12 parts (i.e., $\frac{1}{2}$ to $\frac{1}{12}$). 5.1.3 Explain different interpretations of fractions as parts of a whole, as parts of a set, and quotients of whole numbers.	Partial: GDOE makes no reference for use of number lines; CCSS is weighted in using numbers lines for many of their grade level standards. Grade 5 GDOE standard (5.1.3) parts to include sets and quotient of whole numbers.	-Identify fractions on a number line	N/A

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
3.NF.3a	<p>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.</p> <p><i>NOTE: Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.</i></p>	3.1.6 Show equivalent fractions using equal parts.	Partial: CCSS note indicates use of denominators 2, 3, 4, 6, and 8 only. CCSS uses terminology to "explain" rather than "show." Both GDOE and CCSS imply equivalent fractions have same size parts, but CCSS implies students need to understand that equivalent fractions will also occupy the same point on the number line.	N/A	N/A
3.NF.3b	<p>Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size: 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.</p> <p><i>NOTE: Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.</i></p>	<p>3.1.6 Show equivalent fractions using equal parts.</p> <p>5.1.4 Express a set of fractions as an equivalent set with the same denominator (e.g., $\{2/3, 3/4, 1/6\}$ as $\{8/12, 9/12, 2/12\}$).</p>	Partial: CCSS note indicates use of denominators 2, 3, 4, 6, and 8 only. CCSS implies importance of explaining why fractions are equivalent in a different way, such as modeling with picture.	-Match pictorial models to fraction names and notation	NA
3.NF.3c	<p>Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size: Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. <i>Examples: Express 3 in the form $3 = 3/1$; recognize that $6/1$</i></p>	5.1.3 Explain different interpretations of fractions as parts of a whole, as parts of a set, and quotients of whole numbers.	Partial: Currently, this is a Grade five GDOE standard. CCSS references number line recognition, such as $6/1 = 6$ and $4/4 = 1$.	-Identify alternative representations of whole numbers	N/A

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	<i>= 6; locate 4/4 and 1 at the same point of a number line diagram. NOTE: Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.</i>				
3.NF.3d	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size: 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. <i>NOTE: Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.</i>	4.1.6 Compare and order fractions and decimals.	Partial: GDOE includes decimal comparison. CCSS implies reasoning skills to compare special cases (for example: same numerators, different denominators; same denominators, different numerators) and validity is supported when the fractions refer to the same-size whole. CCSS implies students must justify their reasoning.	N/A	N/A
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.	3.12.1 Determine the duration of intervals of time in hours and minutes (e.g., time elapsed between 10:20 a.m. and 3:05 p.m.).	Partial: CCSS includes solving word problems with addition and subtraction of time intervals in minutes and references modeling using the number line.	-Solve problems involving elapsed time	(41) Elapsed time
3.MD.2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add,	2.12.4 Identify the measurable attribute of volume (or capacity for containers) and compare the volumes of objects by	Partial: CCSS refers to standard metric weight and volume units only, whereas GDOE includes U.S.	-Identify appropriate units of measurement -Estimate	N/A

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	<p>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.</p> <p><i>NOTE: Excludes compound units such as cm^3 and finding the geometric volume of a container.</i></p> <p><i>NOTE: Excludes multiplicative comparison problems (problems involving notions of “times as much”; see Glossary, Table 2).</i></p>	<p>direct comparison (filling containers or displacing liquid) using appropriate mathematical symbolism and vocabulary for comparisons (i.e., $>$, $<$, $=$, greater than, less than, equal to).</p> <p>2.13.2 Estimate and measure weights with standard units of weight (i.e., pounds and ounces, grams and kilograms).</p> <p>3.13.2 Estimate and measure volumes/capacities of containers using standard units (i.e., U.S. conventional and metric).</p>	<p>conventional units as well. CCSS includes solving one-step word problems using all four operations involving masses or volumes in the same units. Modeling is also suggested.</p>	<p>capacity using customary or metric units</p> <p>-Estimate or measure length using customary or metric units</p>	
3.MD.3	<p>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></p>	<p>2.15.1 Respond to questions about data represented in tables and pictograms.</p> <p>3.14.1 Pose questions, collect data to answer them, and organize the data in bar graphs and pictographs (pictograms).</p> <p>3.15.1 Identify and interpret bar graphs (horizontal and vertical).</p> <p>3.16.1 Make conjectures or predictions based on data.</p>	<p>Partial: GDOE 3.16.1 may not pose the same types of questions as CCSS.</p>	<p>-Read and interpret tables and graphs</p>	<p>(49, 50, 53, 54, 55, 56)</p> <p>Interpreting graphs</p>
3.MD.4	<p>Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a</p>	<p>3.13.1 Measure lengths to the nearest half inch and half centimeter.</p> <p>4.13.1 Measure length to the</p>	<p>Partial: Measurement for both GDOE and CCSS include quarter inch and half inch. CCSS includes</p>	<p>-Identify appropriate units of measurement</p> <p>-Estimate or</p>	<p>N/A</p>

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	<p>line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.</p> <p><i>NOTE: Students in Grade 2 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.</i></p>	nearest quarter inch, eighth inch, and millimeter.	whole numbers specifically. CCSS includes data collection to form a line graph and label with appropriate units. CCSS references U.S. customary system specifically while GDOE uses both metric and U.S. customary systems.	measure length using customary or metric units	
3.MD.5a	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.	3.12.3 Identify the measurable attribute of area and compare the areas of flat surfaces by direct comparison (covering one with the other) using appropriate mathematical symbolism and vocabulary for comparisons (i.e., $>$, $<$, $=$, greater than, less than, equal to).	Partial: Both GDOE and CCSS recognize the measurable attribute of area. CCSS emphasizes the concept of one square unit while GDOE compares areas.	-Solve problems involving perimeter or area	(44) Area of a rectangle
3.MD.5b	Recognize area as an attribute of plane figures and understand concepts of area measurement: 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.	N/A	N/A	N/A	N/A
3.MD.6	Measure areas by counting unit	3.13.3 Estimate and measure	Partial: GDOE includes	N/A	N/A

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	squares (square cm, square m, square in, square ft, and improvised units).	the areas of two flat surfaces or regions using nonstandard units (e.g., covering both with cubes or other shapes). 4.13.2 Estimate and measure the areas of flat surfaces or regions using standard measure (i.e., square inches, square feet, square centimeters, square meters).	estimation of areas while CCSS includes "improvised units."		
3.MD.7a	Relate area to the operations of multiplication and addition: 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.	3.12.3 Identify the measurable attribute of area and compare the areas of flat surfaces by direct comparison (covering one with the other) using appropriate mathematical symbolism and vocabulary for comparisons (i.e., $>$, $<$, $=$, greater than, less than, equal to). 4.13.3 Develop the formula for the area of a rectangle and use it to find areas from the measures of the lengths of the sides. Compare results with the areas found by covering the rectangle with standard units.	Partial: Both standards interpret area in a similar fashion, relating the surface and product of the sides; CCSS explicitly states whole-number sides.	-Solve problems involving perimeter or area	(44) Solve area by counting squares
3.MD.7b	Relate area to the operations of multiplication and addition: Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of	3.12.3 Identify the measurable attribute of area and compare the areas of flat surfaces by direct comparison (covering one with the other) using	Partial: Both standards interpret area in a similar fashion, relating the surface and product of the sides; CCSS explicitly states	N/A	N/A

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	appropriate mathematical symbolism and vocabulary for comparisons (i.e., $>$, $<$, $=$, greater than, less than, equal to). 4.13.3 Develop the formula for the area of a rectangle and use it to find areas from the measures of the lengths of the sides. Compare results with the areas found by covering the rectangle with standard units.	whole-number sides. CCSS includes the context of solving real-world mathematical problems.		
3.MD.7c	Relate area to the operations of multiplication and addition: 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.	N/A	N/A	N/A	N/A
3.MD.7d	Relate area to the operations of multiplication and addition: 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.	N/A	N/A	-Solve problems using no routine strategies	N/A
3.MD.8	Solve real world and mathematical problems involving perimeters of	3.12.2 Solve problems (e.g., perimeter problems) that	Partial: Both standards represent solving problems	-Solve problems involving	(42, 43) Solve perimeter but

Common Core State Standard (CCSS)		GDOE Content Standard	Alignment Notes	SAT 10 Objectives	SBA Objectives
	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.	require the addition or subtraction of measures of lengths that may require regrouping of inches to feet or centimeters to meters (e.g., adding two distances such as 9' 8" and 3' 5"). 4.13.4 Use formulas to explore perimeter and area of rectangles, figures composed of rectangles, and the relationship, if any, between perimeter and area.	involving the concept of perimeter. CCSS does not ask students to convert between units, but asks students to find an unknown side and demonstrate the concept that rectangles with the same area can have different perimeters, which is part of GDOE 4.13.4.	perimeter or area	not in context
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.	3.8.1 Identify, describe, and draw triangles, quadrilaterals, pentagons, and other polygons. 4.8.4 Classify triangles (e.g., equilateral, isosceles, scalene) and identify their attributes. 4.8.5 Classify quadrilaterals (e.g., rhombus, square, rectangle, parallelogram, trapezoid) and identify their attributes.	Partial: CCSS also includes drawing of quadrilaterals that do not belong to any of the subcategories.	-Identify components and properties of geometric figures	(28) Identifying a shape from its name



GRADE 3 Common Core State Standards – Critical Areas

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 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) 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) 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) 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.



Big Idea 1, Quarter 1:

Students will solve problems of measurement using the operations of addition and subtraction. They will measure and estimate liquid volume and masses of objects using standard units of grams, kilograms, and liters (only addition and subtraction of units) and tell and write time to the nearest minute.

Essential Question(s):

What mathematical tools could we use to visualize and represent the situation?
What evidence would you need to display to convince me of your understanding of place value and properties?
How is solving a problem of volume similar to finding lapsed time? How would it be different?

Standards:

- 3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.
- 3.NBT.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.**
- 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.**
- 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.
- 3.MD.2 *Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). 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.*
- 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.*

Mathematical Practices:

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.
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Suggested Timeline: 4 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 2, Quarter 1: Students will solve two-step word problems using the operations of addition and subtraction, identify strategies, and explain the reasonableness of the solutions.				Essential Question(s): What are different ways to represent a given problem? How would you convince me that your answer is reasonable? What ways can you show your thinking?			
Standards: 3.OA.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. <u>(Addition and Subtraction only)</u>							
Mathematical Practices:							
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.

Suggested Timeline: 1–2 weeks

Big Idea 3, Quarter 1: Students will recognize and understand that shapes in different categories may share attributes that can define them into a larger category.				Essential Question(s): What are the similarities and differences among quadrilaterals? How do you know what specific name to give to a quadrilateral?			
Standards: 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.							
Mathematical Practices:							
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.

Suggested Timeline: 1–2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 4, Quarter 1: Students will learn what it means to multiply and be able to represent multiplication using an area model. Students will develop the meaning of area and how it is measured.			Essential Question(s): How can you represent multiplication using manipulatives or drawings? What are some ways to represent division in a drawing? What is area and how do you measure area?				
Standards:							
3.OA.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each.							
3.MD.5.a Recognize area as an attribute of plane 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.							
3.OA.9 <i>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.</i>							
3.MD.5.b Recognize area as an attribute of plane figures and understand concepts of area measurement. 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.							
3.MD.7.a 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.							
Mathematical Practices:							
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.

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 1, Quarter 2: Students will apply multiplication strategies to solve multi-step problems fluently.			Essential Question(s): What is multiplication? What multiplication strategy might apply to a situation? How do you determine that the multiplication strategy worked?				
Standards:							
3.OA.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each.							
3.OA.3 Use <u>multiplication</u> 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.							
3.OA.4 Determine the unknown whole number in a <u>multiplication</u> or division equation relating three whole numbers.							
3.OA.5 Apply properties of operations as strategies to <u>multiply</u> and divide.							
3.OA.7 Fluently <u>multiply</u> 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.							
3.OA.8 <i>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. (<u>Multiplication</u>)</i>							
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.							
3.MD.2 <i>Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, <u>multiply</u>, 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.</i>							
3.MD.3 <i>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>							
Mathematical Practices:							
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.

Suggested Timeline: 5 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 2, Quarter 2: Students will utilize their understanding of place value and multiplication properties to multiply a one-digit whole number by multiples of 10.				Essential Question(s): What is the relationship between ($5 \times 2 = \square$) and ($50 \times 2 = \square$)? How does a strategy for finding a solution change from $\square \times 2 = 10$ to $\square \times 2 = 100$?			
Standards: 3.NBT.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.							
Mathematical Practices:							
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.

Suggested Timeline: 2 weeks

Big Idea 3, Quarter 2: Students will solve real world and mathematical problems that involve perimeter (a linear measure of units) and area (a measure of square units) of polygons.				Essential Question(s): What are ways to visually represent your problem? What is the difference between the perimeter and the area of a figure? What could you show or represent to convince me of this difference? How can an area change if you use a specific perimeter?			
Standards: 3.MD.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). 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.							
Mathematical Practices:							
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.

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 1, Quarter 3: Students will understand the meaning of division (How many are in the group? Vs. How many groups?) and how it connects to multiplication.			Essential Question(s): What strategies can I use to help me understand mathematical problems involving multiplication and division? How do properties help to divide? What is the relationship between multiplication and division?				
Standards:							
3.OA.2 Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ 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. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.							
3.OA.3 <i>Use multiplication and <u>division</u> 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.</i>							
3.OA.4 <i>Determine the unknown whole number in a multiplication or <u>division</u> equation relating three whole numbers.</i>							
3.OA.5 <i>Apply properties of operations as strategies to multiply and <u>divide</u>.</i>							
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.							
3.OA.7 <i>Fluently multiply and <u>divide</u> 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.</i>							
3.OA.8 <i>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. (<u>Multiply and divide</u>)</i>							
Mathematical Practices:							
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.

Suggested Timeline: 3 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 2, Quarter 3: Students will solve real world problems and generalize their understanding of areas and relate this to multiplication and addition using additive and distributive properties.				Essential Question(s): What properties between additive and distributive do I use in order to find the area? How can students explain the relationship of the distributive property in context using pictures, words, and numbers to support their reasoning?			
Standards: 3.MD.7.b Relate area to the operations of multiplication and addition. 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. 3.MD.7.c Relate area to the operations of multiplication and addition. 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. 3.MD.7.d Relate area to the operations of multiplication and addition. 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.							
Mathematical Practices:							
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.

Suggested Timeline: 3 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 3, Quarter 3: Students will develop an understanding of the meaning of a fraction as a number and be able to use fractions on a number line and to describe part of a whole.				Essential Question(s): How will I show a fraction using concrete models? What does the number in a numerator mean? How do you partition parts of a whole to represent a fraction? How do you partition a number line to represent a fraction?			
Standards:							
3.NF.1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.							
3.NF.2a 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.							
3.NF.2b Understand a fraction as a number on the number line; represent fractions on a number line diagram. 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.							
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.							
3.G.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.							
Mathematical Practices:							
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.

Suggested Timeline: 3 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 1, Quarter 4: Students will generalize their understanding of equivalent fractions by explaining, comparing, and reasoning fractions in relation to their size.	Essential Question(s): What methods or strategies will I use to show the equivalency of a fraction? When are two fractions equivalent? What does it mean for two fractions to be equivalent and how would you show this to be true?								
Standards: <div>3.NF.3.a 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.</div> <div>3.NF.3.b Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 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.</div> <div>3.NF.3.c Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 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.</div> <div>3.NF.3.d Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 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.</div>									
Mathematical Practices: <table><tr><td>1. Make sense of problems and persevere in solving them.</td><td>2. Reason abstractly and quantitatively.</td><td>3. Construct viable arguments and critique the reasoning of others.</td><td>4. Model with mathematics.</td><td>5. Use appropriate tools strategically.</td><td>6. Attend to precision.</td><td>7. Look for and make use of structure.</td><td>8. Look for and express regularity in repeated reasoning.</td></tr></table>		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.
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.		

Suggested Timeline: 4 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 2, Quarter 4: Students will solve a variety of problems using all four operations by writing equations using a variable to represent the unknown quantity.				Essential Question(s): What strategies can I use to help me understand mathematical problems involving multiplication and division? How would you use another strategy to convince yourself that your solution is correct for a problem?			
Standards: 3.OA.8 <i>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.</i>							
Mathematical Practices:							
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.

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 3, Quarter 4: Students will determine different strategies to solve one-step word problems involving masses or volumes using all four operations.			Essential Question(s): What determines the measurement tool you need to solve a problem? What helps you to estimate the size of an amount of liquid?				
Standards: 3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). 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.							
Mathematical Practices:							
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.

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized



Big Idea 1, Quarter 1:

Students will solve problems of measurement using the operations of addition and subtraction. They will measure and estimate liquid volume and masses of objects using standard units of grams, kilograms, and liters (only addition and subtraction of units) and tell and write time to the nearest minute.

Essential Question(s):

What mathematical tools could we use to visualize and represent the situation?
What evidence would you need to display to convince me of your understanding of place value and properties?
How is solving a problem of volume similar to finding lapsed time? How would it be different?

Standards:

- 3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.
- 3.NBT.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.**
- 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.**
- 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.
- 3.MD.2 *Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). 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.*
- 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.*

Mathematical Practices:

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.
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Elements of the Standard(s) – What’s the meaning?

This group of standards has four areas of focus. First, it is essential for students to have a deep understanding of place value and number sense and to be able to explain and reason about the answers they get when they round. Students should have numerous experiences using a number line and a hundreds addition chart as tools to support their work with rounding. Extending on the strategies developed in second grade, in third grade students

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>develop strategies for adding and subtracting numbers up to 1,000.</p> <p>The second focus is to have students examine arithmetic patterns involving addition and to justify them using the number properties. Arithmetic patterns are patterns that change by the same rate, such as adding the same number repeatedly. For example, the series 2, 4, 6, 8, 10 is an arithmetic pattern that increases by 2 between each term.</p> <p>The third focus calls for students to solve elapsed time and to reason about units of mass and volume to include word problems.</p> <p>The fourth focus provides students opportunities to read and solve problems using scaled graphs before being asked to draw one; students will need to experience different intervals to further develop their understanding of scale graphs and number facts.</p>		
<p>Key Vocabulary</p> <p>digit, place value positions (to 1,000), round, whole number, addition, addends, algorithm, difference, equation, place value, strategy, subtraction, subtrahend, sum, increasing/decreasing patterns, commutative property of addition, associative property of addition, identity property of addition, operations, repeating patterns, analog clock, digital clock, elapsed time, hour, interval, measure, minute, time, time intervals, attribute, balance scale, beaker, estimate, gram, kilogram, liquid volume, liter, mass, measure, measurement scale, metric, standard units, volume, bar graph, category, data, graph, horizontal axis, increments, intervals, key, picture graph, scale, tile, vertical axis</p>	<p>Links to Prior Learning</p> <ul style="list-style-type: none"> In earlier grades, the foundations of place value were used to decompose numbers to understand and apply properties of operations and relationships between addition and subtraction for numbers up to 100. Students in second grade learned to tell time to the nearest five minutes. They also measured length in whole units using both metric and U.S. customary systems and represented and interpreted data. 	<p>Links to Future Learning</p> <p>The rounding strategies developed in third grade will be expanded in grade four with larger numbers. Additionally, students will formalize the rules for rounding numbers with the expansion of numbers in fourth grade.</p>
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <p>Prior to implementing rules for rounding, students need to have opportunities to investigate</p>		<p>Mathematical Practices</p> <p>Model with mathematics: When solving problems,</p>

Italic Information: Recursive standard – repeated in at least one other quarter

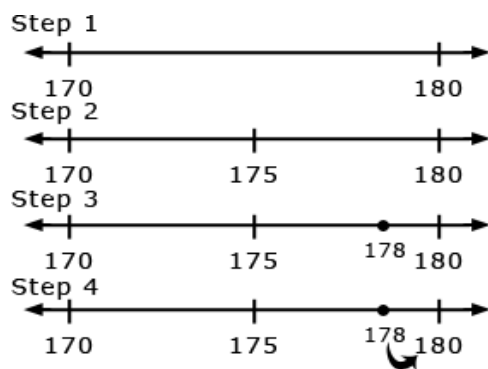
BOLD information: Standards that should be emphasized

place value. A strong understanding of place value is essential for the developed number sense and the subsequent work that involves rounding numbers.

Building on previous understandings of the place value of digits in multi-digit numbers, place value is used to round whole numbers. Dependence on learning rules can be eliminated with strategies such as the use of a number line to determine which multiple of 10 or of 100 a number is nearest (5 or more rounds up, less than 5 rounds down). As students' understanding of place value increases, the strategies for rounding are valuable for estimating, justifying, and predicting the reasonableness of solutions in problem solving.

Students learn when and why to round numbers. They identify possible answers and halfway points. Then they narrow where the given number falls between the possible answers and halfway points. They also understand that by convention if a number is exactly at the halfway point of the two possible answers, the number is rounded up. (Marzano: Nonlinguistic Representations)

For example: Round 178 to the nearest 10.



Step 1: The answer is either 170 or 180.

Step 2: The halfway point is 175.

Step 3: 178 is between 175 and 180.

Step 4: Therefore, the rounded number is 180.

Strategies used to add and subtract two-digit numbers are now applied to fluently add and subtract whole numbers within 1000. These strategies should be discussed so that students can

students may model using visuals and explain their thinking through purposeful manipulations (MP 4).

Use appropriate tools strategically: Students use a number line to round numbers. Students use an analog clock to tell time. Students use appropriate tools to measure and estimate liquid volumes in liters only and masses of objects in grams and kilograms (MP 5).

Look for and make use of structure: Students explore patterns in the addition table by determining likenesses, differences, and changes. Students observe and identify important numerical patterns related to operations (MP 7).

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make comparisons and move toward efficient methods.

Problems should include both vertical and horizontal forms, including opportunities for students to apply the commutative and associative properties. Adding and subtracting fluently refers to knowledge of procedures, knowledge of when and how to use them appropriately, and skill in performing them flexibly, accurately, and efficiently. Students explain their thinking and show their work by using strategies and algorithms, and verify that their answer is reasonable. Fluency takes much time and perseverance to develop with students.

Example: (See attachment: Addition and Subtraction Problem Solving Strategies at the end of the curriculum guide. Use problem formats but with appropriate third grade numbers.)

Mary read 573 pages during her summer reading challenge. She was only required to read 399 pages. How many extra pages did Mary read beyond the challenge requirements?

Students may use several approaches to solve the problem including the traditional algorithm.
Computation algorithm: 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.

Computation strategy: 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.

Examples of other methods students may use are listed below: (Marzano: Identifying Similarities and Differences)

$399 + 1 = 400$, $400 + 100 = 500$, $500 + 73 = 573$, therefore $1 + 100 + 73 = 174$ pages (**Adding up strategy**)

$400 + 100$ is 500; $500 + 73$ is 573; $100 + 73$ is 173 plus 1 (for 399, to 400) is 174 (**Compensating strategy**)

Take away 73 from 573 to get to 500, take away 100 to get to 400, and take away 1 to get to 399. Then $73 + 100 + 1 = 174$ (**Subtracting to count down strategy**)

$399 + 1$ is 400, 500 (that's 100 more). 510, 520, 530, 540, 550, 560, 570, (that's 70 more), 571,

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572, 573 (that's 3 more) so the total is $1 + 100 + 70 + 3 = 174$ (**Adding by tens or hundreds strategy**)

3.OA.9 Students need ample opportunities to observe and identify important numerical patterns related to operations. They build on their previous experiences with properties related to addition and subtraction. They can explore patterns in the addition table by determining likenesses, differences, and changes. (Marzano: Identifying Similarities and Differences)

Examples:

- 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 doubles (2 addends the same) in an addition table fall on a diagonal.

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

For 3.MD.1–2, Students in second grade learned to tell time to the nearest five minutes. In third grade, they extend this prior knowledge to tell and write time to the nearest minute and measure elapsed time both in and out of context using clocks and number.

Provide analog clocks that allow students to move the minute hand. (Marzano: Nonlinguistic

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<p>Representations)</p> <p>Students need experience representing time from a digital clock to an analog clock and vice versa. Avoid the use of paper plate clocks. Students need to see the actual relationship between the hour and the minute hand. This is not adequately represented on student-made clocks.</p> <p>Provide word problems involving addition and subtraction of time intervals in minutes. Have students work in pairs to represent the problem on a number line. Students should relate using the number line with subtraction from Grade 2. (Marzano: Cooperative Learning, Nonlinguistic Representations)</p> <p>An example to begin with: 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?</p> <p>Show a number line in 15-minute intervals that begins 15 minutes before 6:30 a.m. and goes to 15 minutes past 8:00 a.m. This Web site has a lot of ideas for elapsed time. Tracking Time</p> <p>Students need to reason about the units of mass and volume. Give students 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. Word problems should only be one-step and include the same units. (Marzano: Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)</p> <p>Some examples for lesson ideas: Students identify five things that weigh about 1 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 paper clip weighs about 1 gram. A box of large paper clips (100 clips) weighs about 100 grams, so 10 boxes would weigh 1 kilogram.</p>	
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A paper clip has a mass of about a) a gram, b) 10 grams, c) 100 grams?

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).

Provide opportunities for students to use appropriate tools to measure and estimate liquid volumes in liters only and masses of objects in grams and kilograms. Students need practice in reading the scales on measuring tools since the markings may not always be in intervals of one. The scales may be marked in intervals of two, five, or ten. Use water colored with food coloring so that the water can be seen in a beaker. (Marzano: Homework and Practice)

Allow students to hold gram and kilogram weights in their hands to use as a benchmark. Students should estimate volumes and masses before actually finding the measuring. Show students a group containing the same kind of objects. Then, show them one of the objects and tell them its weight. Fill a container with more objects and ask students to estimate the weight of the objects. (Marzano: Identifying Similarities and Differences)

Students often focus on size to determine estimates of mass. A big fluffy object and a tiny dense object can confuse them. Because students cannot tell actual mass until they have handled an object, it is important that teachers do not ask students to estimate the mass of objects until they have had the opportunity to lift the objects and then make an estimate of the mass.

Use similar strategies with liquid measures. Be sure that students have opportunities to pour liquids into different size containers to see how much liquid will be in certain whole liters. Show students containers and ask, “How many liters do you think will fill the container?”

If making several estimates, students should make an estimate, then do the measurement and

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continue the process (estimate/measure) rather than doing all the estimates and then doing all the measures. It is important to provide feedback to students on their estimates by using measurement as a way of gaining feedback on estimates. (Marzano: Setting Objectives and Providing Feedback)

For 3.MD.3, students should have opportunities reading and solving problems using scaled graphs before being asked to draw one. Students should experience both horizontal and vertical graphs. (Marzano: Nonlinguistic Representations)

While exploring data concepts, students should 1) **P**ose a question, 2) **C**ollect data, 3) **A**nalyze data, and 4) **I**nterpret data (**PCAI**). Students should be graphing data that is relevant to their lives.

The following graphs all use five as the scale interval, but students should experience different intervals to further develop their understanding of scale graphs and number facts. (Marzano: Nonlinguistic Representations)

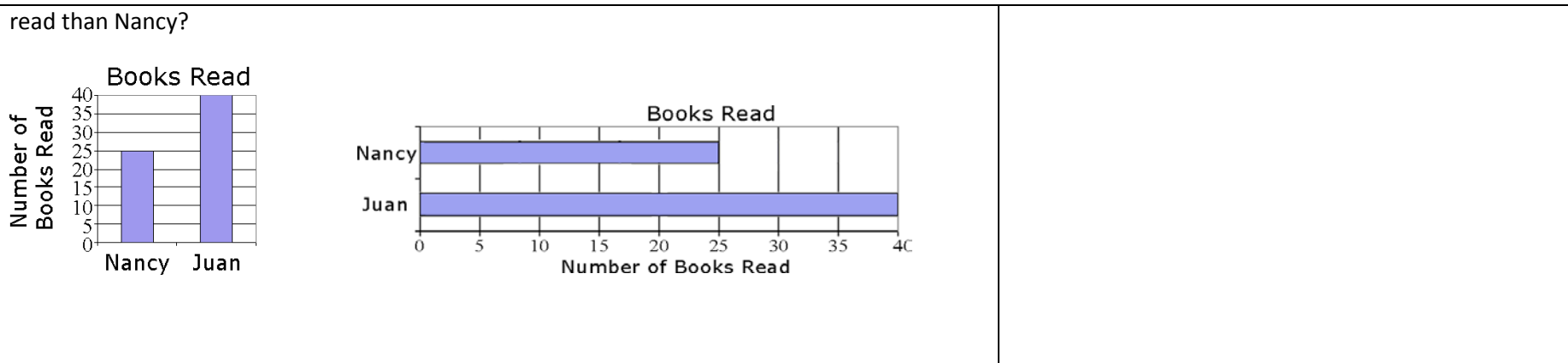
Pictographs: Scaled pictographs include symbols that represent multiple units. Below is an example of a pictograph with symbols that represent multiple units. Graphs should include a title, categories, category label, key, and data. How many more books did Juan read than Nancy?

Number of Books Read	
Nancy	★ ★ ★ ★ ★
Juan	★ ★ ★ ★ ★ ★ ★ ★
★ = 5 Books	

Single Bar Graphs: Students use both horizontal and vertical bar graphs. Bar graphs include a title, scale, scale label, categories, category label, and data. How many more books did Juan

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Resources & Links to Technology

- See attachment: Addition and Subtraction Problem Solving Strategies at the end of the curriculum guide. Use problem formats but with appropriate third grade numbers.
- [Tracking Time](#) Web site that has many examples of showing elapsed time with number line jumps
- [Place Value Games](#) Game to review concepts of place value (video)
- [Subtraction Strategies](#) Video of a school in London using subtraction strategies (jumping method, adding on) and some problems have higher value example, but the method is adaptable (video)
- [Mental Math Strategies](#) Mental Math Strategies video for adding numbers. On the same Web site, there is more information on mental math strategies (lower, right).
- [Math Time Routines](#) Ms. Saul's and math time lesson planning routines (a good video for new teachers to view)
- [HCPSS](#) Howard County Public School System, which includes excellent instructional resources
- [Georgia Department of Education](#) Extensive and excellent teacher information and lesson resources. Click on grade three + sign on right hand side. Curriculum map will provide unit topics and standards. For example, Unit 1, Numbers and operations in Base Ten, covers the following standards, 3.NBT.1 and 3.NBT.2 in Quarter 1 for Big Idea 1. For 3.MD.1, 3.MD.2, and 3.MD.3, topics are covered in unit (for 3.MD.3 and Unit 1 – 6 each for a different focus of the standard). Explore each unit for standards in each Big Idea throughout the year. Each unit has a general overview (worth reading) and rich mathematical tasks that scaffold, construct, practice, and performance task as well a culminating assessment task to support the standards of each unit. **This source should be revisited for standards referenced in each Big Idea.**
- [Amazon Link to Book Purchase](#) Teaching Student-Centered Mathematics volume 2, John M. Van de Walle et al. Excellent Resource for lesson planning activities.

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[Amazon Link to Book Purchases](#) Children’s Mathematics: Cognitively Guided instruction: Thomas P. Carpenter et al. and Thinking Mathematically, Integrating arithmetic and Algebra Thomas P. Carpenter et al. Both books shown on this same Web site. These are excellent resources for developing mathematical learning student strategies.

Big Idea 2, Quarter 1:

Students will solve two-step word problems using the operations of addition and subtraction, identify strategies, and explain the reasonableness of the solutions.

Essential Question(s):

What are different ways to represent a given problem?

How would you convince me that your answer is reasonable?

What ways can you show your thinking?

Standards:

3.OA.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. (*Addition and Subtraction only*)

Mathematical Practices:

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.
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Elements of the Standard(s) – What’s the meaning?

This Big Idea is focused on developing strategies to solve two-step word problems in only the operations addition and subtraction. Students need to be exposed to multiple problem-solving strategies (using any combination of words, numbers, diagrams, physical objects, or symbols) and be able to choose which ones to use. The size of the numbers should be limited to related third grade standards (e.g., 3.NBT.2); adding and subtracting numbers should include numbers within 1,000.

Students also develop, use, and discuss estimation strategies, including using compatible numbers (numbers that sum to 10, 50, or 100) or rounding. Estimation in the beginning of problem solving and during problem solving helps students to access reasonable guesses for an appropriate answer. Revisit their estimates to check for reasonableness of the final solution.

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<p>Key Vocabulary addition, estimation strategies, mental computation, commutative property over addition, associative property over addition, rounding, subtraction unknown variable</p>	<p>Links to Prior Learning This standard has a connection to 3.NBT.2 from Big Idea 1.</p>	<p>Links to Future Learning This standard is foundational for developing Big Idea 2 in Quarter 4 where students will solve two-step equations using all four operations. It also provides a link to multiplication where the operation of multiplication can be first approached as repeated addition for Big Idea 1, Quarter 2.</p>
<p>Instructional Strategies (EL, SIOP, SPED, Marzano) Students gain a full understanding of which operation to use in any given situation through contextual problems. Number skills and concepts are developed as students solve problems. Problems should be presented on a regular basis as students work with numbers and computations.</p> <p>Researchers and mathematics educators advise against providing “key words” for students to look for in problem situations because they can be misleading. Students should use various strategies to solve problems. Students should analyze the structure of the problem to make sense of it. They should think through the problem and the meaning of the answer before attempting to solve it. (Marzano: Identifying Similarities and Differences)</p> <p>Encourage students to represent the problem situation in a drawing or with counters or blocks. Students should determine the reasonableness of the solution to all problems using mental computations and estimation strategies. (Marzano: Nonlinguistic Representations)</p> <p>Begin with word problems that promote more than one way to solve and encourage students to justify their thinking and be able to explain someone else’s way of solving the problem. This safe environment and student engagement typically needs much time and patience to cultivate. Problem Solving video supporting MP 1. See attachment: Addition and Subtraction Problem Solving Strategies at the end of the curriculum guide. Use problem formats but with appropriate third grade numbers.</p>		<p>Mathematical Practices Make sense of problems and persevere in solving them: Students know that doing mathematics involves problem solving and discussing strategies on how they solve the problems; they should analyze the structure of the problem to make sense of it (MP 1).</p> <p>Reason abstractly and quantitatively: Number skills and concepts are developed as students solve problems (MP 2).</p> <p>Model with mathematics: Students represent the problem situation in a drawing or with counters or blocks (MP 4).</p> <p>Use appropriate tools strategically: When students solve word problems, they use various estimation skills (MP 5).</p>

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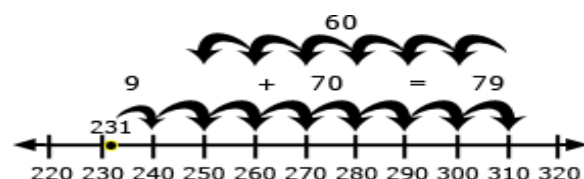
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Here is an example of a problem that evokes multiple solutions:

Jerry earned 231 points at school last week. This week he earned 79 points. If he uses 60 points to earn free time on a computer, how many points will he have left?

Some possible student approaches are provided.

A number line approach:



- A student explains his/her thinking: “231 + 9 = 240 so now I need to add 70 more. 240, 250 (10 more), 260 (20 more), 270, 280, 290, 300, 310 (70 more). Now I need to count back 60. 310, 300 (back 10), 290 (back 20), 280, 270, 260, 250 (back 60).”
- A student writes the equation, $231 + 79 - 60 = m$ and uses rounding ($230 + 80 - 60$) to estimate.
- A student writes the equation $231 + 79 - 60 = m$ and calculates $79 - 60 = 19$ and then calculates $231 + 19 = m$.

Another example:

- The soccer club is going on a trip to the water park. The cost of attending the trip is \$63. Included in that price is \$13 for lunch and the cost of 2 wristbands, one for the morning and one for the afternoon. Write an equation representing the cost of the field trip, and determine the price of one wristband.

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w	w	13		
63				

The above diagram helps the student write the equation $w + w + 13 = 63$. Using the diagram, a student might think, “I know that the two wristbands cost \$50 (\$63-\$13), so one wristband costs \$25.” To check for reasonableness, a student might use front-end estimation and say $60 - 10 = 50$ and $50 \div 2 = 25$.

When students solve word problems, they use various estimation skills, which include identifying when estimation is appropriate, determining the level of accuracy needed, selecting the appropriate method of estimation, and verifying solutions or determining the reasonableness of solutions. (Marzano: Generating and Testing Hypotheses)

Estimation strategies include, but are not limited to:

- Using benchmark numbers that are easy to compute
- Front-end estimation with adjusting (using the highest place value and estimating from the front end making adjustments to the estimate by taking into account the remaining amounts)
- Rounding and adjusting (students round down or round up and then adjust their estimate depending on how much the rounding changed the original values)

Estimation example:

- 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 you travel?

Here are some typical estimation strategies for the problem:

- **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.

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<ul style="list-style-type: none"> • 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. • 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. Students should be expected to explain their thinking in arriving at the answer.</p>	
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> • See attachment: Addition and Subtraction Problem Solving Strategies at the end of the curriculum guide. Use problem formats but with appropriate third grade numbers. • Illuminations Multiplication patterns: Students can look for patterns in the table and Multiplication: It's in the Cards: Students skip count and examine multiplication patterns. They also explore the commutative property of multiplication. Multiplication: It's in the Cards: Looking for Calculator Patterns: Students use a Web-based calculator to create and compare counting patterns using the constant function feature of the calculator. Making connections between multiple representations of counting patterns reinforces students' understanding of this important idea and helps them recall these patterns as multiplication facts. From a chart, students notice that multiplication is commutative. • Problem Solving A teacher video that encourages students to persevere in solving problems and increases student confidence using multiple problem solving strategies; supports MP 1. 	

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Big Idea 3, Quarter 1: Students will recognize and understand that shapes in different categories may share attributes that can define them into a larger category.				Essential Question(s): What are the similarities and differences among quadrilaterals? How do you know what specific name to give to a quadrilateral?			
Standards: 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.							
Mathematical Practices:							
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.
Elements of the Standard(s) – What’s the meaning? Students will classify shapes by attributes and by drawing shapes that fit specific categories. For example, parallelograms include: squares, rectangles, rhombuses, or other shapes that have two pairs of parallel sides. Also, the broad category, quadrilaterals, includes all types of parallelograms, trapezoids, and other four-sided figures.							
Key Vocabulary right, obtuse and acute angles, attributes, closed figure, open figure, line, line segment, pentagon, parallel, parallelogram, polygon, quadrilateral, rectangle, rhombus, side, square, vertex, vertices			Links to Prior Learning In earlier grades, students had experience with informal reasoning about particular shapes through sorting and classifying using their geometric attributes. Students have built and drawn shapes given the number of faces, number of angles, and number of sides.		Links to Future Learning This is foundational for fourth grade students who will build a firm foundation of several shape categories; these categories can be the raw material for thinking about the relationships in classifying shapes. This standard is also foundational for the high school course of Geometry.		
Instructional Strategies (EL, SIOP, SPED, Marzano) In second grade, students identify and draw triangles, quadrilaterals, pentagons, and hexagons. Third-graders build on this experience and further investigate quadrilaterals; identifying and					Mathematical Practices Make sense of problems and persevere in solving them: Students see relationships and non-		

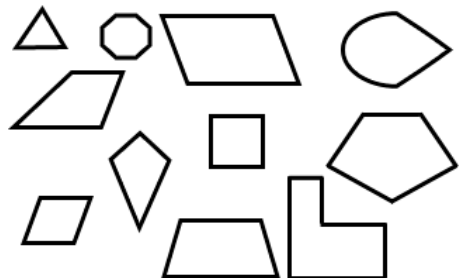
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<p>describing properties of two-dimensional shapes in more precise ways using properties that are shared rather than the appearances of individual shapes. Students recognize shapes that are and are not quadrilaterals by examining the properties of 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.</p> <p>Working in pairs or small groups, students should classify shapes by attributes and drawing shapes that fit specific categories. For example, parallelograms include: squares, rectangles, rhombuses, or other shapes that have two pairs of parallel sides. Also, the broad category quadrilaterals includes all types of parallelograms, trapezoids, and other four-sided figures. (Marzano: Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)</p> <p>The focus now is on identifying and describing properties of two-dimensional shapes in more precise ways using properties that are shared rather than the appearances of individual shapes. These properties allow for generalizations of all shapes that fit a particular classification. Development in focusing on the identification and description of shapes' properties should include examples and non-examples, as well as examples and non-examples drawn by students of shapes in a particular category. For example, students could start with identifying shapes with right angles. An explanation as to why the remaining shapes do not fit this category should be discussed. Students should determine common characteristics of the remaining shapes.</p> <p>Working in pairs or small groups, these are some shapes that students could compare and contrast to uncover the attributes addressed in this standard. (Marzano: Identifying Similarities and Differences, Nonlinguistic Representations, Cooperative Learning)</p>	<p>relationships between geometric figures (MP 1).</p> <p>Use appropriate tools strategically: Students use straws to make four congruent figures and change the angles to see the relationships between a rhombus and a square (MP 5).</p> <p>Attend to precision: Students identify and describe properties of two-dimensional shapes in more precise ways using shared properties. Students use precise vocabulary (MP 6).</p> <p>Look for and make use of structure: Students classify shapes by attributes and drawing shapes that fit specific categories (MP 7).</p>
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 <p>Here is an example of what might be asked of students:</p> <ul style="list-style-type: none"> • 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. <p>Students may identify a square as a “non-rectangle” or a “non-rhombus” based on limited images they see. They do not recognize that a square is a rectangle because it has all of the properties of a rectangle. They may list properties of each shape separately but not see the interrelationships between the shapes. For example, students do not look at the properties of a square that are characteristic of other figures as well. Using straws to make four congruent figures, have students change the angles to see the relationships between a rhombus and a square. As students develop definitions for these shapes, relationships between the properties will be understood.</p>	
<p>Resources & Links to Technology Making Shapes on Grids This is a Web site where you can change the endpoints of each polygon to find common attributes.</p>	

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Big Idea 4, Quarter 1: Students will learn what it means to multiply and be able to represent multiplication using an area model. Students will develop the meaning of area and how it is measured.			Essential Question(s): How can you represent multiplication using manipulatives or drawings? What are some ways to represent division in a drawing? What is area and how do you measure area?				
Standards: 3.OA.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. 3.MD.5.a Recognize area as an attribute of plane 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. 3.OA.9 <i>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.</i> 3.MD.5.b Recognize area as an attribute of plane figures and understand concepts of area measurement. 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. 3.MD.7.a 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.							
Mathematical Practices:							
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.
Elements of the Standard(s) – What’s the meaning? The focus of these standards is on the real meaning of multiplication and not just number facts. There is an emphasis on precise language to support the meaning of multiplication. Multiplication of two factors can be demonstrated by an area array, and for a two-dimensional plane figure, such as a rectangle, the attribute of side length is measured in units and its area is measured in square units.							
Key Vocabulary equal groups, factor, groups of, multiplication, product, repeated addition, factor, product, unknown factor, increasing/decreasing patterns, pattern, operations, repeating			Links to Prior Learning In Grade 2, students found the total number of objects using rectangular arrays, such as a 5×5 , and wrote equations to represent the sum. This strategy is a foundation for		Links to Future Learning An understanding of the meaning of multiplication provides the foundation for the meaning of division as an inverse operation. Formulating precise language here will be a natural extension in dealing with the		

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BOLD information: Standards that should be emphasized

patterns, area, array, associative property of multiplication, commutative property of multiplication, distributive property, closed figure, identity property of multiplication, multiplicand, multiplier, column, length, row, square units, tile/tiling, width	multiplication because students should make a connection between repeated addition and multiplication.	precise language of division.
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <p>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. 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 5×7 refer to 5 groups of 7.</p> <p>In the first Big Idea of this quarter, an addition chart was used to observe and determine arithmetic patterns. Revisit this strategy with a multiplication chart. (Marzano: Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)</p> <p>For example:</p> <ul style="list-style-type: none"> The multiples of 4, 6, 8, and 10 are all even because they can all be decomposed into two equal groups. 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. Highlight the 6 column multiples vertically and the 6 column multiples horizontally in the multiplication table. What do you notice? (Explain a pattern using properties of operations. When the order of the factors is switched, it will still give the same product. Example: $6 \times 5 = 30$ and $5 \times 6 = 30$; Commutative Property of Multiplication.) 		<p>Mathematical Practices</p> <p>Make sense of problems and persevere in solving them: 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 (MP 1).</p> <p>Model with mathematics: Students interpret a problem situation requiring multiplication using pictures, objects, words, numbers, and equations. Show a variety of models of multiplication. Sets of counters, different size squares for “tiling,” number lines to skip count and relate to multiplication and arrays/area models will aid students in solving problems involving multiplication and division (MP 4).</p> <p>Use appropriate tools strategically: Students use a multiplication chart to observe and determine patterns in multiplying numbers (MP 5).</p> <p>Attend to precision: Students solve word problems in different ways to show the same idea and be able to explain their thinking verbally and in written expression using precise mathematical language (MP</p>

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Though not necessarily the scope of this Big Idea, it is important to understand there are several ways in which we can think of multiplication:</p> <p>First, multiplication is often thought of as repeated addition of equal groups. While this definition works for some sets of numbers, it is not particularly intuitive or meaningful when we think of multiplying 3 by $\frac{1}{2}$, for example, or 5 by -2. In such cases, it may be helpful to widen the idea of grouping to include evaluation of part of a group. This concept is related to partitioning (which, in turn, is related to division). Example: three groups of five students can be read as $3 \cdot 5$, or 15 students, while half a group of 10 stars can be represented as $\frac{1}{2} \cdot 10$, or 5 stars. These are examples of partitioning; each one of the three groups of five is part of the group of 15, and the group of 5 stars is part of the group of 10.</p> <p>An example that supports this concept is the following:</p> <ul style="list-style-type: none"> Jim purchased 5 packages of muffins. Each package contained 3 muffins. How many muffins did Jim purchase? (5 groups of 3, $5 \times 3 = 15$.) A good extension would be to have students describe another situation where there would be 5 groups of 3 or 5×3. <p>To further develop this understanding, students interpret a problem situation requiring multiplication using pictures, objects, words, numbers, and equations. Then, given a multiplication expression (e.g., 5×6), students interpret the expression using a multiplication context. (See attachment: Multiplication and Division Problem Solving Strategies at the end of the curriculum guide. Use problem formats but with appropriate third grade numbers.) They should begin to use the terms, factor and product, as they describe multiplication. Students need to experience problem solving involving equal groups (whole unknown or size of group is unknown) and multiplicative comparison (unknown product, group size unknown or number of groups unknown) as shown on the 2-page attachment at the end of this guide.</p> <p>Encourage students to solve these problems in different ways to show the same idea and be able to explain their thinking verbally and in written expression. Allowing students to present several different strategies provides the opportunity for them to compare strategies.</p>	<p>6).</p>
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Italic Information: Recursive standard – repeated in at least one other quarter

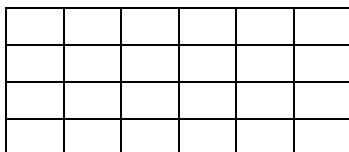
BOLD information: Standards that should be emphasized

Show a variety of models of multiplication. Sets of counters, number lines to skip count and relate to multiplication, and arrays/area models will aid students in solving problems involving multiplication and division in upcoming Big Ideas in other quarters. Provide a variety of contexts and tasks so that students will have more opportunity to develop and use thinking strategies to support and reinforce learning of basic multiplication and division facts. Allow students to model problems using these tools. Students should represent the model used as a drawing or equation to find the solution.

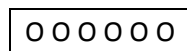
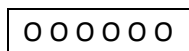
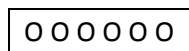
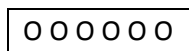
Examples of multiplication:

- There are 24 desks in the classroom. If the teacher puts 6 desks in each row, how many rows are there? Drawing an array by putting 6 desks in each row can solve this task.

This is an array model:



- Drawing pictures of equal groups can also solve this task. 4 groups of 6 equal 24 objects:



- A student could 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.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Have students create multiplication problem situations in which they interpret the product of whole numbers as the total number of objects in a group and write as an expression. Students can use known multiplication facts to determine the unknown fact in a multiplication or division problem.

Though not the scope of this grade level: A second concept of multiplication is that of rate or price. Example: If a car travels four hours at 50 miles per hour, then it travels a total of $4 \bullet 50$, or 200 miles; if CDs cost \$8 each, then three CDs will cost $3 \bullet \$8$, or \$24.

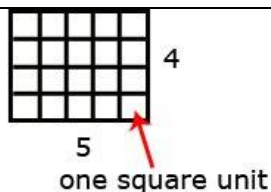
Though not the scope of this grade level: A third concept of multiplication is that of multiplicative comparison. Example: Sara has four CDs, Joanne has three times as many as Sara, and Sylvia has half as many as Sara. Thus, Joanne has $3 \bullet 4$, or 12 CDs, and Sylvia has $1/2 \bullet 4$, or 2 CDs. (See attachment: Multiplication and Division Problem Solving Strategies at the end of the curriculum guide. Use problem formats but with appropriate third grade numbers.)

At this grade level, the concept of multiplication addresses the area of rectangles by covering (but not overlapping or leaving gaps) with unit squares, a method referred to by “tiling” the rectangle. Students develop understanding of using square units to measure area by: Using different sized square units. (See attachment: Multiplication and Division Problem Solving Strategies at the end of the curriculum guide. Use problem formats but with appropriate third grade numbers.)

- Filling in an area with the same sized square units and counting the number of square units
- For example in this picture, a 4 unit by 5 unit rectangle can be represented by 20 unit squares in a 4 x 5 array of square units.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized



Area describes the size of an object that is two-dimensional. The formulas should not be introduced before students discover the meaning of area.

Students need to develop the meaning for computing the area of a rectangle. A connection needs to be made between the number of squares it takes to cover the rectangle and the dimensions of the rectangle.

Ask questions such as:

- What does the length of a rectangle describe about the squares covering it?
- What does the width of a rectangle describe about the squares covering it?

Students need to discover that the length of one dimension of a rectangle tells how many squares are in each row of an array, and the length of the other dimension of the rectangle tells how many squares are in each column. Ask questions about the dimensions if students do not make these discoveries.

For example:

- How do the squares covering a rectangle compare to an array?
- How is multiplication used to count the number of objects in an array?

Students tile areas of rectangles, determine the area, record the length and width of the rectangle, investigate the patterns in the numbers, and discover that the area is the length times the width.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Activity: Provide pairs of students with 42 square tiles and have them form different rectangles using all the tiles. Expect different lengths and widths, such as 6 units by 7 units or 3 units by 14 units. Using graph paper, students should draw each rectangle and record the length, width, and area in a chart. Have them make a conjecture about their findings. A discovery may arise that 6 x 7 and 7 x 6 rectangles have the same side lengths and same area but orientation is different, providing an opportunity to talk about the commutative property of multiplication. (Marzano: Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)

Resources & Links to Technology

- Sets of counters or linking cubes
- Number lines to skip count and relate to multiplication
- Arrays and Area: See attached: Multiplication and Division Problem Solving Strategies
- [Problem Solving](#) Teacher video that encourages students to persevere in solving problems
- [Illustrations](#) Exploring equal sets: This four-part lesson encourages students to explore models for multiplication, the inverse of multiplication, and representing multiplication facts in equation form. All About Multiplication: In this four-lesson unit, students explore several meanings and representations of multiplication and learn about properties of operations for multiplication.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 1, Quarter 2: Students will apply multiplication strategies to solve multi-step problems fluently.				Essential Question(s): What is multiplication? What multiplication strategy might apply to a situation? How do you determine that the multiplication strategy worked?			
Standards: 3.OA.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. 3.OA.3 Use <u>multiplication</u> 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. 3.OA.4 Determine the unknown whole number in a <u>multiplication</u> or division equation relating three whole numbers. 3.OA.5 Apply properties of operations as strategies to <u>multiply</u> and divide. 3.OA.7 Fluently <u>multiply</u> 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. 3.OA.8 <i>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. (<u>Multiplication</u>)</i> 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. 3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, <u>multiply</u> , 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. 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.							
Mathematical Practices:							
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.
Elements of the Standard(s) – What’s the meaning? Many of the standards in this Big Idea have been developed in the first quarter for addition and subtraction and for foundational topics of the meaning							

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

and precise language of multiplication. The major emphasis in this Big Idea is using multiplication strategies to solve problems in context.		
<p>Key Vocabulary Refer to Vocabulary in Big Idea 4 Quarter 1. Also consider: equal sign, multiplication equation, unknown variable</p>	<p>Links to Prior Learning Topics covered in Quarter 1 were foundational for applying those strategies to problem solving.</p> <p>In Grade 2, students found the total number of objects using rectangular arrays, such as a 5 x 5, and wrote equations to represent the sum. This is called unitizing, and it requires students to count groups, not just objects. They see the whole as a number of groups of a number of objects. This strategy is a foundation for multiplication in that students should make a connection between repeated addition and multiplication.</p>	<p>Links to Future Learning The concept and meaning of division will be explored in Quarter 3, including solving problems in context.</p>
<p>Instructional Strategies (EL, SIOP, SPED, Marzano) Students use a variety of representations for creating and solving one-step word problems, i.e., numbers, words, pictures, physical objects, or equations. They use multiplication and division of whole numbers up to 10 x 10. Students explain their thinking, show their work by using at least one representation, and verify that their answer is reasonable. (Marzano, Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)</p> <p>Word problems may be represented in multiple ways:</p> <ul style="list-style-type: none"> Equations: such as, $3 \times 4 = ?$, $4 \times 3 = ?$ Array: <div> <p>A diagram showing a rectangular array of 12 small circles arranged in 3 rows and 4 columns, representing the multiplication 3 x 4 or 4 x 3.</p> </div> 		<p>Mathematical Practices Make sense of problems and persevere in solving them: Relate current situations to concepts or skills previously learned and connect mathematical ideas to one another (MP 1).</p> <p>Model with mathematics: Students use a variety of representations for creating and solving one-step word problems, i.e., numbers, words, pictures, physical objects, or equations (MP 4).</p> <p>Attend to precision: Students express numerical answers with a degree of precision appropriate for the</p>

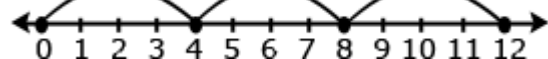
Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

- Equal Groups



- Repeated Addition $4 + 4 + 4$; or repeated subtraction
- Three equal jumps from 0 on the number line to 12 or three equal backwards from 12 to 0



See attachment at the end of the curriculum guide for 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 ($? \times 6 = 18$, $18 \div 6 = 3$).

A connection to 3.OA.4 is made to extend beyond the traditional notion of fact families, by having students explore the inverse relationship of multiplication and division. Students solve problems and determine unknowns in equations. Students should also experience creating story problems for given equations. When crafting story problems, they should carefully consider the question(s) to be asked and answered to write an appropriate equation. Students may approach the same story problem differently and write either a multiplication equation or division equation.

Students apply their understanding of the meaning of the equal sign as “the same 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.

problem context (MP 6).

Look for and make use of structure: When crafting story problems, students should carefully consider the question(s) to be asked and answered to write an appropriate equation. Students may approach the same story problem differently and write either a multiplication equation or division equation. Students should understand that properties are rules about how numbers work and be flexible and fluent in applying each of them (MP 7).

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

- The missing factor is 10 because 4 times 10 is equal to 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.
Examples:
- Solve the equation: $24 = ? \times 6$
- Rachel has 3 bags. There are 4 marbles in each bag. How many marbles does Rachel have altogether? ($3 \times 4 = m$)

While students DO NOT need to use the formal terms of these properties, they should understand that properties are rules about how numbers work; students do need to be flexible and fluent in applying each of them. 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. (Marzano: Generating and Testing Hypotheses)

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 $7 \times 5 \times 2$, a student could rearrange the numbers to first multiply $5 \times 2 = 10$ and then multiply $10 \times 7 = 70$.

The commutative property (order property) states that the order of numbers does not matter when adding or multiplying numbers. For example, if a student knows that $4 \times 3 = 12$, then they also know that $3 \times 4 = 12$. The array below could be described as a 4×3 array for 4 rows and 3 columns or 3 rows and 4 columns. There is no “fixed” way to write the dimensions of an array as rows x columns or columns x rows.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Another example: $3 \times 6 = 6 \times 3$

In the following diagram, it may not be obvious that 3 groups of 6 is the same as 6 groups of 3. A student may need to count to verify this.

is the same quantity as

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.

Here are ways that students could use the distributive property to determine the product of 7×6 .

Again, students should use the distributive property, but can refer to this in informal language such as "breaking numbers apart."

	Student 1	Student 2	Student 3
	7×6	7×6	7×6
	$7 \times 5 = 35$	$7 \times 3 = 21$	$5 \times 6 = 30$
	$7 \times 1 = 7$	$7 \times 3 = 21$	$2 \times 6 = 12$
	$35 + 7 = 42$	$21 + 21 = 42$	$30 + 12 = 42$

Example:

If students are asked to find the product of 7×8 , they might decompose 7 into 5 and 2 and then multiply 5×8 and 2×8 to arrive at $40 + 16$ or 56. Students should learn that they can decompose either of the factors. It is important to note that the students may record their thinking in different ways.

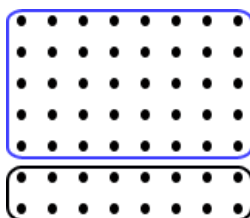
Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

$$5 \times 8 = 40$$

$$2 \times 8 = \underline{+16}$$

$$56$$



$$5 \times 8 = 40$$

$$2 \times 8 = 16$$

$$7 \times 4 = 28$$

$$7 \times 4 = \underline{+28}$$

$$56$$

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)
- $2 \times 3 \times 5 = 6 \times 5$
- $10 \times 2 < 5 \times 2 \times 2$
- $2 \times 3 \times 5 = 10 \times 3$
- $0 \times 6 > 3 \times 0 \times 2$

“Know from memory” does not mean focusing 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 9×9). The CCSS define the word *fluently* as accuracy, efficiency (using a reasonable amount of steps and time), and flexibility (using strategies such as the distributive property). Instruction should focus on building fluency over time. (Marzano: Reinforcing Effort and Providing Recognition)

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

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

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, 5×10 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: 3×3)
- Nines (10 groups less one group, e.g., 9×3 is 10 groups of 3 minus one group of 3)
- Decomposing into known facts (6×7 is 6×6 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

General Note: 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.

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

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

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. This is not 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 knowing from multiplication patterns and best strategies, is also part of these vital standards.

Resources & Links to Technology

- See attachment: Multiplication and Division Problem Solving Strategies at the end of the curriculum guide.
- [Illuminations](#) Multiplication patterns: Students can look for patterns in the table and Multiplication: It's in the Cards: Students skip count and examine multiplication patterns. They also explore the commutative property of multiplication.
- Multiplication: It's in the Cards: Looking for Calculator Patterns: Students use a Web-based calculator to create and compare counting patterns using the constant function feature of the calculator. Making connections between multiple representations of counting patterns reinforces students' understanding of this important idea and helps them recall these patterns as multiplication facts. From a chart, students notice that multiplication is commutative.

Big Idea 2, Quarter 2:

Students will utilize their understanding of place value and multiplication properties to multiply a one-digit whole number by multiples of 10.

Essential Question(s):

What is the relationship between $(5 \times 2 = \square)$ and $(50 \times 2 = \square)$?
How does a strategy for finding a solution change from $\square \times 2 = 10$ to $\square \times 2 = 100$?

Standards:

3.NBT.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.

Mathematical Practices:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

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.
Elements of the Standard(s) – What’s the meaning? This standard extends students’ work in multiplication by having them apply their understanding of place value. The expectation is for students to go beyond tricks that hinder understanding such as “just adding zeros” and to explain and reason about their products. For example, for the problem 50 x 4, students should think of this as 4 groups of 5 tens or 20 tens; 20 tens equals 200.							
Key Vocabulary basic facts, multiple, multiplication, place value, product, strategy, whole number		Links to Prior Learning <ul style="list-style-type: none">This builds on 3.NBT.1 from Big Idea 1, Quarter 1; where understanding place value was used to round numbers and to include properties of operation.In earlier grades, students decomposed numbers for flexible strategies in computation.			Links to Future Learning This standard is foundational for fourth grade students to expand on place value and use it to express equivalent fractions with dominators of powers of 10; for example, 3/10 = 30/100.		
Instructional Strategies (EL, SIOP, SPED, Marzano) 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 x 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 x 50 = 3 x (5 x 10) = (3 x 5) x 10 = 15 x 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: <ul style="list-style-type: none">Skip counting by 50 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, 10 tens is 100, 5 tens is 50. So 15 tens is 100 and 50 or 150.					Mathematical Practices Make sense of problems and persevere in solving them: Students recognize that the special role of 10 in the base-ten system is important in understanding multiplication of one-digit numbers with multiples of 10 (MP 1). Look for and make use of structure: Students who use multiplication and division strategies generally make use of their knowledge of multi-digit addition. They tend to use a strategy in which they operate on the tens and ones separately (MP 7).		

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

- 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; for example, computing 5×90 might be explained as 90 is 9×10 and 5×9 is 45, so 45 tens is 450.

Students use base-ten blocks, diagrams, or hundreds charts to multiply one-digit numbers by multiples of 10 from 10–90. They apply their understanding of multiplication and the meaning of the multiples of 10. For example, 30 is 3 tens and 70 is 7 tens. They can interpret 2×40 as 2 groups of 4 tens or 8 groups of ten. They understand that 5×60 is 5 groups of 6 tens or 30 tens and know that 30 tens is 300. After developing this understanding, they begin to recognize the patterns in multiplying by multiples of 10.

Students who use multiplication and division strategies generally make use of their knowledge of multi-digit addition. They tend to use a strategy in which they operate on the tens and ones separately.

Example: The school bought 6 boxes of markers. There are 24 markers in each box. How many markers are there altogether?

- Pat: 6 twos is 12, so 6 twenties is 120. 3 fours is 12, and 3 more fours is 24. So it's 120 and 24 or 144. (Pat first multiplied the tens and then the ones.)
- Sam: 24 and 24 is 48, and 48 and 48 equals two groups of 40 and 16 more. Now I have 96. Now I need to add 96 and 48. Taking 4 from the 48 makes it 44. When I add the 4 to 96, it becomes 100. 44 and 100 becomes 144. (Sam used a doubling strategy followed with compensation.)

Having students develop their own strategy to solve the problem allows them to make sense of the problem from whatever entry point they use; as a result, they are better able to justify

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

their reasoning.							
Resources & Links to Technology Mental Math Strategies Mental Math Strategies video for adding numbers. On the same Web site, there is more information on mental math strategies (lower, right).							
Big Idea 3, Quarter 2: Students will solve real world and mathematical problems that involve perimeter (a linear measure of units) and area (a measure of square units) of polygons.				Essential Question(s): What are ways to visually represent your problem? What is the difference between the perimeter and the area of a figure? What could you show or represent to convince me of this difference? How can an area change if you use a specific perimeter?			
Standards: 3.MD.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). 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.							
Mathematical Practices:							
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.
Elements of the Standard(s) – What’s the meaning? These two standards continue the ideas from Big Idea 4 Quarter 1 with respect to area and using appropriate units for labeling. Attributes of perimeter and area are explored using real-world contextual problems.							
Key Vocabulary area, plane figure, square cm, square ft, square in., square m, square units, unit squares, equilateral, length, perimeter, polygon, quadrilateral			Links to Prior Learning In earlier grades, students measured and estimated lengths in standard units.		Links to Future Learning <ul style="list-style-type: none">This topic is also foundational in fourth grade (4.MD.3).This standard is also foundational for the high school course of Geometry.		
Instructional Strategies (EL, SIOP, SPED, Marzano) Students should be counting the square units to find the area could be in metric, customary, or					Mathematical Practices Make sense of problems and persevere in solving		

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<p>non-standard square units. Using different sized graph paper, students can explore the areas measured in square centimeters and square inches. (Marzano: Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)</p> <p>Students develop an understanding of the concept of perimeter by 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.</p> <p>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.</p> <p>Students have created rectangles before when finding the area of rectangles and connecting them to using arrays in the multiplication of whole numbers. To explore finding the perimeter of a rectangle, have students use non-stretchy string. They should measure the string and create a rectangle before cutting it into four pieces. Then, have students use four pieces of the non-stretchy string to make a rectangle. Two pieces of the string should be of the same length, and the other two pieces should have a different length that is the same. Students should be able to make the connection that perimeter is the total distance around the rectangle.</p> <p>Students use geoboards, tiles, graph paper, or technology to find all the possible rectangles with a given area.</p> <p>Example: find the rectangles that have an area of 12 square units.</p> <ul style="list-style-type: none"> • Students record all the possibilities using dot or graph paper. • Students compile the possibilities into an organized list or a table. • Students determine whether they have all the possible rectangles. • Students then investigate the perimeter of the rectangles with an area of 12. 	<p>them (MP 1).</p> <p>Model with mathematics: Students develop an understanding of the concept of perimeter by walking around the perimeter of a room, using rubber bands to represent the perimeter of a plane figure on a geoboard, using graph paper to outline a shape, or tracing around a shape on an interactive whiteboard (MP 4).</p> <p>Use appropriate tools strategically: Students can use a geoboard, graph paper, or an interactive whiteboard to develop the concepts of perimeter and area (MP 5).</p> <p>Attend to precision: Students calculate efficiently and accurately and label units appropriate for the context of the problem (MP 6).</p> <p>Look for and make use of structure: Students create a chart and observe patterns in the chart; for example, to identify the factors of 12, connect the results to the commutative property, and discuss the differences in perimeter within the same area (MP 7).</p>
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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.	
<p>The patterns in the chart allow 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. (Marzano: Identifying Similarities and Differences)</p>				
<p>Resources & Links to Technology Investigating Perimeter and Area This site includes an activity to investigate the areas of all the rectangles that can be built with 20 toothpicks and 20 paper clips.</p>				

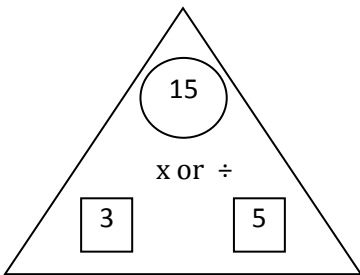
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Big Idea 1, Quarter 3: Students will understand the meaning of division (How many are in the group? Vs. How many groups?) and how it connects to multiplication.	Essential Question(s): What strategies can I use to help me understand mathematical problems involving multiplication and division? How do properties help to divide? What is the relationship between multiplication and division?						
Standards: 3.OA.2 Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ 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. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$. 3.OA.3 Use multiplication and <u>division</u> 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. 3.OA.4 Determine the unknown whole number in a multiplication or <u>division</u> equation relating three whole numbers. 3.OA.5 Apply properties of operations as strategies to multiply and <u>divide</u> . 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. 3.OA.7 Fluently multiply and <u>divide</u> 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. 3.OA.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. (<u>Multiply and divide</u>)							
Mathematical Practices:							
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.
Elements of the Standard(s) – What’s the meaning? Standards in this Big Idea were first addressed in Big Idea 4 Quarter 1 and Big Idea 1 Quarter 2 with an emphasis on the meaning, language, and problem solving strategies (also applying properties of operations) for multiplication. The focus of the Big Idea is to deeply explore the language, meaning of division, and division strategies to numbers within. There are two distinct models for division: partition models and measurement. Two-step contextual problem solving will include both multiplication and division.							

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<p>Key Vocabulary See vocabulary in Big Idea 4 Quarter 1 and Big Idea 1 Quarter 2.</p> <p>dividend, division, divisor, equal shares, groups, partition, quotient, equation, sharing, unknown/symbol, inverse relationship</p>	<p>Links to Prior Learning Since division is the inverse of multiplication, this idea connects back to Big 4 in Quarter 1 and Big idea 1 in Quarter 2.</p>	<p>Links to Future Learning The understanding of fair shares will assist in the understanding of fractions.</p>
<p>Instructional Strategies (EL, SIOP, SPED, Marzano) 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. (Marzano, Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)</p> <p>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.</p> <p>Examples:</p> <ul style="list-style-type: none"> • $3 \times 5 = 15$ $5 \times 3 = 15$ • $15 \div 3 = 5$ $15 \div 5 = 3$  <p>A fact family triangle diagram. It is an equilateral triangle with a circle at the top vertex containing the number 15. At the bottom-left vertex is a square containing the number 3, and at the bottom-right vertex is a square containing the number 5. In the center of the triangle, below the top circle, is the text "x or ÷".</p>		<p>Mathematical Practices Make sense of problems and persevere in solving them: Students interpret and make meaning of the problem to find a starting point. Analyze what is given in order to explain to them and others the meaning of the problem (MP 1).</p> <p>Reason abstractly and quantitatively: Students decontextualize a problem (represent a situation symbolically and manipulate the symbols) using various strategies (MP 2).</p> <p>Model with mathematics: Students represent mathematics to describe a situation either with an equation or a diagram and interpret the results of a mathematical situation. Initially, students use cubes and counters to direct model the problem and later to formulate problem solving strategies (MP 4).</p> <p>Look for and make use of structure: Students apply general mathematical rules to specific situations (MP 7).</p> <p>Look for and express regularity in repeated reasoning:</p>

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<p>Example:</p> <p>Sarah did not know the answer to 63 divided by 7. Is each of the following an appropriate way for Sarah to think about the problem? Explain why or why not with a picture or words for each one.</p> <ul style="list-style-type: none"> • “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 7×5 is 35. 63 minus 35 is 28. I know that $7 \times 4 = 28$. So if I add 7×5 and 7×4, I get 63. That means that 7×9 is 63, or 63 divided by 7 is 9.” <p>Grouping and partitioning problems all involve three quantities, as illustrated by this example:</p> <ul style="list-style-type: none"> • Blake has 6 bags. There are 4 cookies in each bag. All together she has 24 cookies. • When the total number of cookies is unknown, the problem is a multiplication problem (Blake has 6 bags of cookies. There are four cookies in each bag. How many cookies does Blake have altogether?) • When the number of groups (bags) is unknown, the problem is a measurement division problem. (Blake has 24 cookies. She puts 4 cookies in each bag. How many bags can she fill?) Essentially, children use the number of objects in each group to measure the total number of objects in each group. • When the number of cookies in each bag is not known, the problem is a partitive division problem. (Blake has 24 cookies. She puts the cookies into 6 bags with the same number of cookies in each bag. How many cookies are in each bag?) Partitive division problems give the total number of objects and the number of groups, and the number of objects in each group is unknown. <p>The distinctions between measurement and partitive division problems are critical because children initially solve them in very different ways, reflecting the different information given in</p>	<p>Students understand the broader application of patterns and see the structure in similar situations (MP 8).</p>
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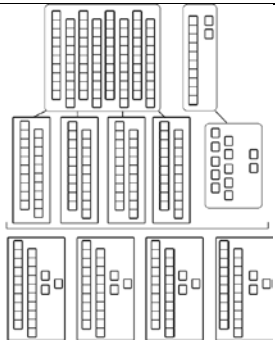
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<p>the problem. It is important for students to understand the part/whole relationships. It is critical in understanding the connection between multiplication and division.</p> <p>Initially, have students use cubes or counters to direct model the problem. Many students will use various strategies of direct modeling to make sense of the problem. Gradually, students replace direct modeling strategies with counting strategies, like skip counting. Eventually, students learn patterns for multiplication facts and develop into derived facts. Derived facts involve a combination of known facts and addition or counting on. The known fact almost always involves one of the numbers given in the problem.</p> <p>Multiplication and division problems also provide students the opportunity to develop a broad and deeper understanding of some of the fundamental grouping ideas underlying place value. Many base-ten problems are essentially multiplication or division problems involving groups of ten. For example, “How many tens are there in 73?” (Measurement division).</p> <p>Examples of division problems:</p> <ul style="list-style-type: none"> • Determining the number of objects in each share (partitive division, where the size of the groups is unknown) <p>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?</p>	
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Step 1

Step 2

Step 3

- Determining the number of shares (measurement division, where the number of groups is unknown). In this example, repeated subtraction is a good strategy.

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.

Resources & Links to Technology

[Mental Math Strategies](#) Mental Math Strategies video for adding numbers. On the same Web site, there is more information on mental math strategies (lower, right).

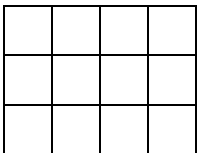

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Big Idea 2, Quarter 3: Students will solve real world problems and generalize their understanding of areas and relate this to multiplication and addition using additive and distributive properties.				Essential Question(s): What properties between additive and distributive do I use in order to find the area? How can students explain the relationship of the distributive property in context using pictures, words, and numbers to support their reasoning?			
Standards: 3.MD.7.b Relate area to the operations of multiplication and addition. 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. 3.MD.7.c Relate area to the operations of multiplication and addition. 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. 3.MD.7.d Relate area to the operations of multiplication and addition. 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.							
Mathematical Practices:							
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.
Elements of the Standard(s) – What’s the meaning? 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.							
Key Vocabulary area, closed figure, length, rectangular array, width, decompose, irregular shape, rectilinear figure, square units, two-dimensional			Links to Prior Learning In Quarter 1 Big Idea 4, students developed the concept of area: covering or tiling a rectangle with unit squares and counting the		Links to Future Learning These standards are foundational for fourth grade students. In fourth grade, students will draw different geometric figures and parts of figures (for example		

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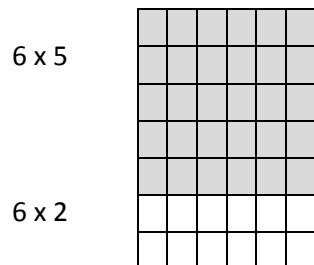
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	unit squares to determine the area; students related the lengths and widths to discover that the product was the area in square units.	point lines, line segments) and then classify quadrilaterals according to their like and unlike attributes.
<p>Instructional Strategies (EL, SIOP, SPED, Marzano) Students should solve mathematical problems in context.</p> <p>How do you find the area of this rectangle?</p>  <p>A student could count the squares in a row: 1 square unit, 2 square units to a total of 12 square units; or they might multiply the one-unit lengths to get 3 units (width) x 4 units (length) is 12 square units.</p> <p>For example:</p> <p>Dad wants to tile a rectangular kitchen floor using tiles that measure one foot in length. How many square foot tiles will he need?</p> <div style="text-align: center;"> <p>10 square feet</p>  <p>8 square feet</p> </div> <p>This standard extends students' work with the distributive property. For example, in the picture</p>		<p>Mathematical Practices Make sense of problems and persevere in solving them: Students understand there are various approaches to solutions (MP 1).</p> <p>Reason abstractly and quantitatively: Create a logical representation of the problem (MP 2).</p> <p>Model with mathematics: Students apply the mathematics they know to solve everyday problems (MP 4).</p> <p>Attend to precision: Students are careful about specifying units of measure; for example, the area of a rectangle is labeled in square units (MP 6).</p>

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below, finding the area of a 6×5 figure and 6×2 figure and adding the two sums can determine the area of a 6×7 figure.



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 12×5 , or by adding two products, e.g., 10×5 and 2×5 , illustrating the distributive property as in the previous example.

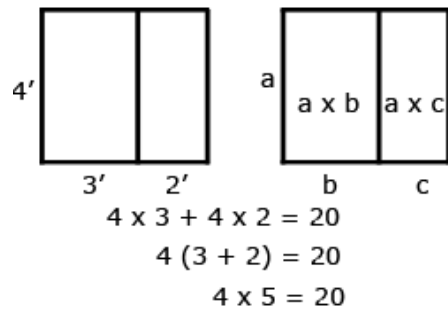
Another example:

Joe and John made a poster that was 4' by 3'. Mary and Amir made a poster that was 4' by 2'. They placed their posters on the wall side-by-side so that there was no space between them. How much area will the two posters cover?

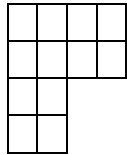
Students use pictures, words, and numbers to explain their understanding of the distributive property in this context.

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The standard uses the word *rectilinear*. A rectilinear figure is a polygon that has all right angles.



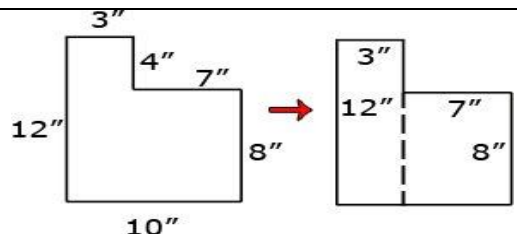
How could this figure be decomposed? Students might see a 2×4 and a 2×2 either horizontally or vertically. Each would get the same area in square units. (12 square units)

Another 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.

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 <p>area is $12 \times 3 + 8 \times 7 = 92$ sq inches</p> <p>Other decompositions are possible. In small groups or pairs, let students explore other ways to decompose the same figure and compare and contrast the solutions. (Marzano, Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)</p>	
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> • Area of Composite Shapes Youtube video of a teacher’s instruction on finding areas of composite shapes • Composite Shapes on Graph Paper Web site with shapes on graph paper to find area of composite shapes 	

<p>Big Idea 3, Quarter 3: Students will develop an understanding of the meaning of a fraction as a number and be able to use fractions on a number line and to describe part of a whole.</p>	<p>Essential Question(s): How will I show a fraction using concrete models? What does the number in a numerator mean? How do you partition parts of a whole to represent a fraction? How do you partition a number line to represent a fraction?</p>
<p>Standards:</p> <p>3.NF.1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.</p> <p>3.NF.2a 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.</p>	


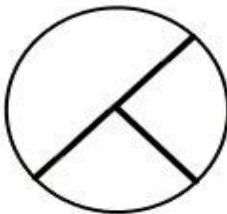
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3.NF.2b	Understand a fraction as a number on the number line; represent fractions on a number line diagram. b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.						
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.						
3.G.2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.						
Mathematical Practices:							
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.
Elements of the Standard(s) – What’s the meaning?							
Grade 3 expectations in the two fraction standards 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. Students use their understanding of fractions on the number line to use a ruler to measure lengths to halves and quarter units.							
Key Vocabulary		Links to Prior Learning			Links to Future Learning		
denominator, equal parts, fair shares, fraction, numerator, one-eighth; $1/8$, one-fourth; $1/4$, one-half; $1/2$, one-sixth; $1/6$, one-third; $1/3$, partitioned, unit fraction, whole, divide, fractional parts, number line diagram, numerator		<ul style="list-style-type: none">In Grades 1 and 2, students use fraction language to describe partitions of shapes into equal shares. In earlier grades, students measured length in metric and U.S. Customary units.In Grade 2, students partitioned rectangles into two, three, or four equal shares, recognizing that the equal shares need not have the same shape. They described the shares using words such as <i>halves</i>, <i>thirds</i>, <i>half</i>			<ul style="list-style-type: none">In fourth grade, students will find equivalent fractions and see the connection to comparing fractions and the operations of addition and subtraction of fractions.In Grade 4, students will partition shapes into parts with equal areas (the spaces in the whole of the shape). These equal areas need to be expressed as unit fractions of the whole shape.		

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BOLD information: Standards that should be emphasized

	<i>of, a third of, etc., and described the whole as two halves, three thirds, or four fourths.</i>	
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <p>The fraction standards should refer to the sharing of a whole being partitioned or split. Fraction models in third grade include area (parts of a whole), models (circles, rectangles, squares), and number lines. Some representations, such as a rectangle, are easier to partition, than say, a circle. Use various contexts familiar to students, such as candy bars, fruit, and cakes. Set models, another type of modeling (parts of a group), are not explored in the third grade curriculum. In 3.NF.1, students should focus on the concept that a fraction is made up (composed) of many pieces of a unit fraction, which has a numerator of 1. For example, the fraction $\frac{3}{5}$ is composed of 3 pieces in that each of the three pieces has a size of $\frac{1}{5}$. (Marzano: Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)</p> <p>Some important concepts related to developing understanding of fractions include:</p> <ul style="list-style-type: none"> Understand fractional parts must be equal-sized <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>Example</p>  <p>These are thirds.</p> </div> <div style="text-align: center;"> <p>Non-example</p>  <p>These are not thirds.</p> </div> </div> <ul style="list-style-type: none"> The number of equal parts tells how many make a whole (the denominator). 		<p>Mathematical Practices</p> <p>Make sense of problems and persevere in solving them (MP 1).</p> <p>Model with mathematics: Fraction models in third grade include area (parts of a whole), models (circles, rectangles, squares), and number lines (MP 4).</p> <p>Use appropriate tools strategically: Some representations, such as a rectangle, are easier to partition, than say, a circle (MP 5).</p> <p>Look for and make use of structure: Students transfer their understanding of parts of a whole to partition a number line into equal parts (MP 7).</p>

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

- As the number of equal pieces in the whole increases, the size of the fractional pieces decreases ($\frac{1}{6}$ is smaller than $\frac{1}{3}$); this is often confusing to students. They see larger whole numbers as bigger numbers and want to assume the same is true for fraction denominators; emphasize by partitioning the same size whole into different pieces for comparison. For the same size rectangular cake, ask: “If you like cake, which piece would you prefer, $\frac{1}{10}$ or $\frac{1}{6}$?” Have students make a conjecture about unit fractions and relative sized denominators.
- The size of the fractional part is relative to the whole. The number of children in one-half of a classroom is different than the number of children in one-half of a school. (The whole in each set is different, therefore the half in each set will be different.) Another 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 same length ribbon is divided into 5 equal parts.
- When a whole is cut into equal parts, the denominator represents the number of equal parts. (A whole is cut into four same size parts, the function of the denominator; each part represents $\frac{1}{4}$ of the whole.) Initially, students can use an intuitive notion of “same size and same shape” (congruence) to explain why the parts are equal. For example, 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.
- The numerator of a fraction is the counting number of equal parts. Therefore, $\frac{3}{4}$ means that there are 3 one-fourths. Students should count as they would for whole numbers, 1, 2, 3, . . . but now count fraction parts of a whole: one-fourth, two-fourths, three-fourths . . .
- 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.

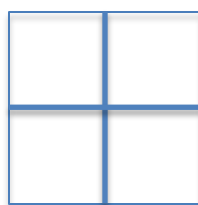
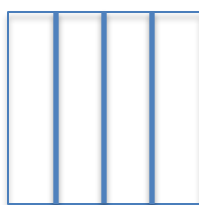
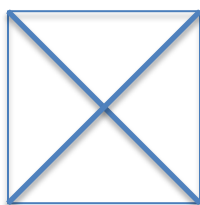
Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
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- Students also need to realize that irrespective of a same whole partitioning that although the parts appear to be unequal that they still represent the same area of the same whole; therefore representing the same fractional part of the whole.



In either of the above squares any two parts represents $\frac{1}{2}$ of the whole square, even if they are not side-by-side when shaded.

Activity: Students think all shapes can be divided the same way. Present shapes other than circles, squares, or rectangles to prevent students from overgeneralizing that all shapes can be divided the same way. (Marzano: Nonlinguistic Representations) For example, have students fold a triangle into eighths. Provide oral directions for folding the triangle:

- Fold the triangle in half by folding the left vertex (at the base of the triangle) over to meet the right vertex.
- Fold in this manner two more times.
- Have students label each eighth using fractional notation. Then, have students count

Italic Information: Recursive standard – repeated in at least one other quarter

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the fractional parts in the triangle (one-eighth, two-eighths, three-eighths, and so on).

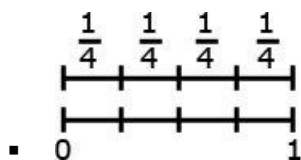
To develop understanding of fair shares, students first participate in situations where the number of objects is greater than the number of children and then progress into situations where the number of objects is less than the number of children.

Consider these examples and how students may model and justify these solutions:

- Four children share six brownies so that each child receives a fair share. How many brownies will each child receive?
- Six children share four brownies so that each child receives a fair share. What portion of each brownie will each child receive?

Students transfer their understanding of parts of a whole to partition a number line into equal parts. There are two new concepts addressed in this standard that students should have time to develop.

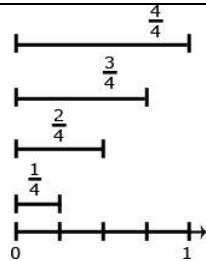
- On a number line from 0 to 1, students can partition (divide) it into equal parts and recognize that each segmented part represents the same length.



- Students label each fractional part based on how far it is from zero to the endpoint.

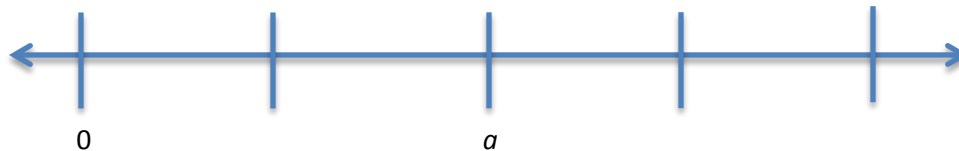
Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

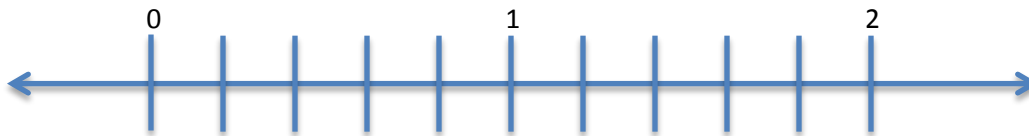


Another example:

What fraction does the letter a represent? (Linear Model) Explain your thinking.



Where is the fraction $5/3$ located on the number line? How do you know?



3.MD.4 provides a context for students to work with fractions by measuring objects to a quarter of an inch. Students need many opportunities measuring the length of various objects in their environment. (Marzano: Cooperative Learning, Identifying Similarities and Differences,

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<p>Nonlinguistic Representations)</p> <p>Some important ideas related to measuring with a ruler are:</p> <ul style="list-style-type: none"> • The starting point of where one places a ruler to begin measuring • Measuring is approximate. Items that students measure will not always measure exactly $\frac{1}{4}$, $\frac{1}{2}$, or one whole inch. Students will need to decide on an appropriate estimate length. • Making paper rulers and folding to find the half and quarter marks will help students develop a stronger understanding of measuring length. <p>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. 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. 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.</p> <p>Example:</p> <p>Measure objects in your desk to the nearest $\frac{1}{2}$ or $\frac{1}{4}$ of an inch and display data collected on a line plot. How many objects measured $\frac{1}{4}$? $\frac{1}{2}$? etc.</p> <p>Students generate data by measuring and creating a line plot to display their findings. An example of a line plot is shown below:</p>	
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Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Number of Objects Measured</p> 	
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> • Number lines • Pattern blocks • Number line This is an interactive number line. 	

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 1, Quarter 4: Students will generalize their understanding of equivalent fractions by explaining, comparing, and reasoning fractions in relation to their size.	Essential Question(s): What methods or strategies will I use to show the equivalency of a fraction? When are two fractions equivalent? What does it mean for two fractions to be equivalent and how would you show this to be true?						
Standards: 3.NF.3.a 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. 3.NF.3.b Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 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. 3.NF.3.c Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 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. 3.NF.3.d Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 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.							
Mathematical Practices:							
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.
Elements of the Standard(s) – What’s the meaning? These standards call for students to use visual fraction models (area models) and number lines to explore the idea of equivalent fractions and comparing fractions. It is important that they are able to justify their reasoning. Students should only explore equivalent fractions using models, rather than using algorithms or procedures.							

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Key Vocabulary compare, equivalent/equivalency, numerator, plot, whole, denominator, equal parts, equivalent, fraction, number line, numerator, visual fraction model, whole number, greater than (>), less than (<)</p>	<p>Links to Prior Learning Previous fraction standards in Big Idea 3 Quarter 3 were foundational for standards addressed in this Big Idea.</p>	<p>Links to Future Learning This Big Idea is foundational to extend the concepts of equivalence and comparing fractions in grade 4; students will also begin to see the connections between fraction concepts and decimals.</p>
<p>Instructional Strategies (EL, SIOP, SPED, Marzano) Several important ideas about these concepts in these standards are explored. (Marzano: Cooperative Learning, Identifying Similarities and Differences, Nonlinguistic Representations)</p> <ul style="list-style-type: none"> • 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. • Students should recognize how to write whole numbers as fractions. The concept relates to fractions as division problems, where the fraction $\frac{3}{1}$ 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 $\frac{a}{1}$. Example: If 6 brownies were shared between 2 people, how many brownies would each person get? • Students can compare fractions with or without visual fraction models including number lines. Experiences should encourage students to reason about the size of pieces, the fact that $\frac{1}{3}$ of a cake is larger than $\frac{1}{4}$ of the same cake. Since the same cake (the whole) is split into equal pieces, thirds are larger than fourths. • Students should also reason that comparisons are only valid if the wholes are identical. For example, $\frac{1}{2}$ of a large pizza is a different amount than $\frac{1}{2}$ of a small pizza. Students should be given opportunities to discuss and reason about which $\frac{1}{2}$ is larger. • Students build upon previous ideas from earlier grades 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; wholes have been divided into the same number of equal parts. So the fraction with the larger numerator, or more of the same size parts, is the larger fraction. For example: $\frac{2}{5} < \frac{4}{5}$ the fraction with the greater numerator is greater because it is made of more unit fractions. For another example, the segment on a number line from 0 to $\frac{3}{4}$ is shorter than the segment from 0 to $\frac{5}{4}$ because it measures 3 units of 		<p>Mathematical Practices Make sense of problems and persevere in solving them: Students relate comparing fractions to earlier fraction concepts and skills previously learned to connect mathematical ideas to one another (MP 1).</p> <p>Reason abstractly and quantitatively: Students make sense of fraction quantities and see their relationships to each other and benchmarks of 0, $\frac{1}{2}$, $\frac{3}{4}$, and 1 (MP 2).</p> <p>Construct viable arguments and critique the reasoning of others: Students justify their thinking and listen to the thinking of others posing clarifying questions to better understand (MP 3).</p> <p>Model with mathematics: Students use number lines to show a fraction's location and how it compares to other fractions and the benchmarks of 0, $\frac{1}{2}$, and 1 (MP 4).</p> <p>Look for and express regularity in repeated reasoning: For example, students see that for fractions that have the same denominator, the underlying unit fractions are the same size; wholes have been divided into the</p>

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>1/4 as opposed to 5 units of 1/4, therefore $3/4 < 5/4$.</p> <ul style="list-style-type: none"> For unit fractions, students also see 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, $2/5 > 2/7$, because $1/7 < 1/5$, so 2 lengths of 1/7 is less than 2 lengths of 1/5. As with equivalence of fractions, it is important in comparing fractions to make sure that each fraction refers to the same whole. Later, using benchmarks such as 0, 1/2, and 1, students will see the proximity of one fraction to a benchmark and be able to determine the relationship of two fractions. Using number lines, they will show the location of the same size part to the benchmarks. Have students justify the relationship to the benchmarks. For example, 3/8 is 1/8 less than 1/2; 5/8 is 1/8 more than 1/2, so 3/8 is another reason why it is less than 5/8. Using the same strategy, compare two number lines, perhaps beneath each other, but partitioned with different fractional denominators such as 3/8 and 3/4 and discuss the relationship of those fractions to the benchmarks. 	<p>same number of equal parts; the fraction with the larger numerator, or more of the same size parts, is the larger fraction (MP 8).</p>
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> Pattern Blocks are a wonderful tool to compare fractions as an area model. They can be used as an interactive component online at these sites. (Illuminations Lesson on Comparing Fractions Using Pattern Blocks ; National Library of Virtual Manipulatives) Cuisenaire Rods are another tool to compare fractions as a linear model. They can be used as an interactive component online at these sites. (Cuisenaire Rods for Comparing Fractions, Learning Resources Guide to Cuisenaire Rods, National Library of Virtual Manipulatives) 	

<p>Big Idea 2, Quarter 4: Students will solve a variety of problems using all four operations by writing equations using a variable to represent the unknown quantity.</p>	<p>Essential Question(s): What strategies can I use to help me understand mathematical problems involving multiplication and division? How would you use another strategy to convince yourself that your solution is correct for a problem?</p>
<p>Standards:</p>	

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

3.OA.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.							
Mathematical Practices:							
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.
Elements of the Standard(s) – What’s the meaning?							
This standard has been extensively discussed in Big Idea 2 Quarter 1 for addition and subtraction strategies, in Big Idea 1 Quarter 2 for multiplication strategies, and Big Idea 1 in Quarter 3 for multiplication and division strategies; all instructional strategies focused on both conceptual development of the standard and solving problems in context. In the Big Idea, one or more operations are combined to solve contextual problems. Estimation still plays an integral role in helping students assess the reasonableness of their solution.							
Key Vocabulary addition, division, estimation strategies, mental computation, multiplication, order of operations, rounding, subtraction, unknown, variable		Links to Prior Learning See previous Big Ideas referenced in the elements of the standard.		Links to Future Learning <ul style="list-style-type: none">See previous Big Ideas referenced in the elements of the standard.Students will continue to expand on the fundamentals of this standard as they solve more complicated multi-step equations in context.			
Instructional Strategies (EL, SIOP, SPED, Marzano) Students begin the step to formal algebraic language by using a variable for the unknown quantity in expressions or equations for one and two-step problems. But the symbols of arithmetic, x or the dot, or * for multiplication and ÷ or / for division, continue to be used in Grades 3, 4, and 5. In this Big Idea, students will solve two-step word problems using the four operations. The size of the numbers should be limited to numbers appropriate for this grade level; for example, adding and subtracting numbers should include numbers within 1,000, and multiplying and				Mathematical Practices Make sense of problems and persevere in solving them: Students interpret and make meaning of the problem to find a starting point; they analyze what is given in order to explain to them and others the meaning of the problem (MP 1). Reason abstractly and quantitatively: Students understand the meaning of quantities and are flexible			

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>dividing numbers should include single-digit factors and products less than 100.</p> <p>Estimation and rounding strategies continue to be vital, including using compatible numbers (numbers that sum to 10, 50, or 100) or rounding. Most important, students use and discuss various strategies. Students should estimate during problem solving, and then revisit their estimate to check for reasonableness. (Marzano: Generating and Testing Hypotheses)</p> <p>Many instructional strategies in the previous quarters hold true here for solving two-step problems using the four operations. Students should be more competent and comfortable explaining their solution strategies, challenging the thinking of others, and justifying their thinking. Students should be able to do a problem in more than one way and use a variety of modeling strategies.</p>	<p>in the use of operations and their properties (MP 2).</p> <p>Model with mathematics: Students represent mathematics to describe a situation either with an equation or a diagram and interpret the results of a mathematical situation (MP 4).</p> <p>Use appropriate tools strategically: Students can use visuals, manipulatives, graph paper, or technology to help them solve two-step word problems. Students use estimation and other mathematical knowledge to detect possible errors (MP 5).</p>
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> • HCPSS Howard County Public School System, excellent lesson resources • Georgia Department of Education Extensive and excellent teacher information and lesson resources. Click on grade three + sign on right hand side. Curriculum map will provide unit topics and standards. For example, Unit 1, Numbers and operations in Base Ten, covers the following standards, 3.NBT.1 and 3.NBT.2 in this Quarter 1 for Big Idea 1. For 3.MD.1, 3.MD.2, and 3.MD.3, topics are covered in unit (for 3.MD.3 and Units 1–6 each for a different focus of the standard. Explore each unit for standards in each Big Idea throughout the year. Each unit has a general overview (worth reading) and rich mathematical tasks that scaffold, construct, practice, and performance task as well a culminating assessment task to support the standards of each unit. • Amazon Link to Book Purchase Teaching Student-Centered Mathematics volume 2, John M. Van de Walle et al.: Excellent Resource for lesson planning activities. 	

<p>Big Idea 3, Quarter 4: Students will determine different strategies to solve one-step word problems involving masses or volumes using all four operations.</p>	<p>Essential Question(s): What determines the measurement tool you need to solve a problem? What helps you to estimate the size of an amount of liquid?</p>
<p>Standards:</p>	

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). 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.

Mathematical Practices:

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.
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Elements of the Standard(s) – What’s the meaning?

This standard, first addressed in Big Idea 1 Quarter 1, asks for students to further reason about the units of mass and volume, using all four operations to solve one-step problems. Students explore multiple opportunities in depth, weighing objects of the different sizes and weights in both standard and metric units, and estimation continues to be integral part of this activity.

Key Vocabulary attribute, balance scale, beaker, estimate, gram, kilogram, liquid volume, liter, mass, measure, measurement scale, metric, standard units, volume	Links to Prior Learning This standard is linked to all standards studied in earlier years that address conceptual understanding and computational strategies for all four whole number operations.	Links to Future Learning This standard is foundational for measurement and data topics in grade 4. Grade 4 students will expand on concepts learned in grade 3 to know relative sizes within one system of units and convert between stems of units; they will solve word problems including volume and mass.
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Instructional Strategies (EL, SIOP, SPED, Marzano) This standard asks for students to reason about the units of mass and volume using standard units, such as: 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.	Mathematical Practices Make sense of problems and persevere in solving them (MP 1). Construct viable arguments and critique the reasoning of others (MP 3). Model with mathematics: Students need multiple opportunities “massing” classroom objects and filling containers to help them develop a basic
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Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Students need multiple opportunities “massing” classroom objects and filling containers to help them develop a basic understanding of the size and mass of a liter, a gram, and a kilogram. Milliliters may also be used to show amounts that are less than a liter.</p> <p>Recall from Big Idea 1 Quarter 1, foundational understandings to help with measure concepts:</p> <ul style="list-style-type: none"> • 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). 	<p>understanding of the size and mass of a liter, a gram, and a kilogram (MP 4).</p> <p>Use appropriate tools strategically: Students use available tools recognizing the strengths and limitations of each (MP 5).</p> <p>Attend to precision: Students express numerical answers with a degree of precision appropriate for the problem context (MP 6).</p>
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> • HCPSS Howard County Public School System, excellent lesson resources • Georgia Department of Education Extensive and excellent teacher information and lesson resources. See Big Idea 1 Quarter 1 for directions to locate standard and lesson content. • Amazon Link to Book Purchase Teaching Student-Centered Mathematics volume 2, John M. Van de Walle et al.: Excellent Resource for lesson planning activities. 	

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BOLD information: Standards that should be emphasized

GUAM District Level Curriculum Guide

Addition and Subtraction Problem Solving Strategies

	Result Unknown	Change Unknown	Start Unknown
Add to	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? $? + 3 = 5$
Take from	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? $? - 2 = 3$

	Total Unknown	Addend Unknown	Both Addends Unknown
Put Together or Take Apart	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? $5 = 0 + 5, 5 = 5 + 0$ $5 = 1 + 4, 5 = 4 + 1$ $5 = 2 + 3, 5 = 3 + 2$

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

GUAM District Level Curriculum Guide

	Difference Unknown	Bigger Unknown	Smaller Unknown
Compare	<p>(How many more? version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy?</p> <p>(How many fewer? version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? $2 + ? = 5$, $5 - 2 = ?$</p>	<p>(Version with —more): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have?</p> <p>(Version with —fewer): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? $2 + 3 = ?$, $3 + 2 = ?$</p>	<p>(Version with —more): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have?</p> <p>(Version with —fewer): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? $5 - 3 = ?$, $? + 3 = 5$</p>

Multiplication and Division Problem Solving Strategies

	Unknown Product	Group Size Unknown (How many in each group? - Division)	Number of Groups Unknown (How many groups? - Division)
	$3 \cdot 6 = ?$	$3 \cdot ? = 18$ and $18 \div 3 = ?$	$? \cdot 6 = 18$ and $18 \div 6 = ?$
Equal Groups	<p>There are 3 bags with 6 plums in each bag. How many plums are there in all?</p> <p>Measurement example. You need 3 lengths of string, each 6 inches long. How much string will you need altogether?</p>	<p>If 18 plums are shared equally into 3 bags, then how many plums will be in each bag?</p> <p>Measurement example. You have 18 inches of string, which you will cut into 3 equal pieces. How long will each piece of string be?</p>	<p>If 18 plums are to be packed 6 to a bag, then how many bags are needed?</p> <p>Measurement example. 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?</p>

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

GUAM District Level Curriculum Guide

Arrays	There are 3 rows of apples with 6 apples in each row. How many apples are there?	If 18 apples are arranged into 3 equal rows, how many apples will be in each row?	If 18 apples are arranged into equal rows of 6 apples, how many rows will there be?
Area	Area example. What is the area of a 3 cm by 6 cm rectangle?	Area example. A rectangle has area 18 square centimeters. If one side is 3 cm long, how long is a side next to it?	Area example. A rectangle has area 18 square centimeters. If one side is 6 cm long, how long is a side next to it?
Compare	A blue hat costs \$6. A red hat costs 3 times as much as the blue hat. How much does the red hat cost? Measurement example. 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? Measurement example. 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? Measurement example. 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?
General	$a \cdot b = ?$	$a \cdot ? = p$ and $p \div a = ?$	$? \cdot b = p$ and $p \div b = ?$

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized



Content: Math	Grade/Course: 3	Timeline: 60 minutes
Standard(s): 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. NOTE: A range of algorithms may be used. Mathematical Practices: 1. Make sense of problems and persevere in solving them, 2. Reason abstractly and quantitatively, 4. Model with mathematics, 7. Look for and make use of structure, 8. Look for and express regularity in repeated reasoning		
Lesson Overview: Adding and subtracting fluently refers to knowledge of procedures, knowledge of when and how to use them appropriately, and skill in performing them flexibly, accurately, and efficiently, often developed through deep conceptual understanding of place value. The goal of this lesson is to develop efficient ways to group numbers and/or develop compensation strategies (adjusting a number by adding or subtracting to make it a friendlier number for non-conventional algorithms) for mental addition and subtraction.	Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">Engage in mental math activities and rich group discussions about various strategies used to find the answers to addition and subtraction problems.Explain the strategy used and justify their thinking and the reasonableness of the solution in the context of the problem.	
Vocabulary: Strategy, justification (provide reasons why the strategy works), mental math	Focus Question(s): What approaches are the most useful mental math strategies for the solution to the problem?	
Description of Lesson (including instructional strategies): Anticipatory Set: From second grade standard 2.NBT.7, students were provided ample opportunity to use concrete materials (place value blocks) and pictorial representations such as number lines to support their addition and subtraction strategies. They composed and decomposed tens and hundreds to facilitate their thinking. Begin this lesson by placing one problem at a time on the board, preferably horizontally. Be aware that students may initially need individual time to solve these problems mentally, so encourage students to be patient and quiet during this time. Below is a number string that encourages doubling, making tens and hundreds. After allowing enough time for students to consider the problem, lead a discussion by asking several students to share their solution and strategy. Simply stating an answer is not enough to make this a rich activity. Encourage students to share different strategies, asking them to try to make sense of each solution as it is presented. Remind students that the goal is to become “efficient and flexible” in their thinking emphasizing place value as the anchor for each strategy. Doubling Strategy for $30 + 30$: <u>I know that 30 is 3 tens, so 3 tens and 3 more tens is 6 tens or 60</u> Making tens strategy for $6 + 1 + 4 + 9$: <u>I know that 6 ones and 4 ones make one ten. I know that 1 one and 9 ones makes another 10. I know that $10 + 10$ is 20.</u> This similar thinking process is also useable when making hundreds.		

Instructions that are italicized include student engagement strategies.

Instructions that are underlined embed checking for understanding.

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Doubling	Making Tens	Making Hundreds
$30 + 30$	$7 + 3 + 8 + 2$	$40 + 60$
$29 + 28$	$6 + 1 + 4 + 9$	$70 + 30$
$60 - 30$	$5 + 2 + 8 + 5$	$71 + 29$
$60 - 31$	$17 + 14$	$10 + 90$
$60 - 29$	$19 + 11$	$60 + 30 + 40 + 70$

Student's possible strategies may include but are not limited to:

For example $29 + 28$: I know that $30 + 30$ is 60, take 1 away ($30 - 29$), I get 59; take 2 more away ($30 - 28$), I get 57. (This is an example of compensation—rounding to easier numbers then adjusting for the rounding)

For example $17 + 14$: I know that $10 + 10$ is 20, $7 + 4$ is 11 and can be written as $10 + 1$; therefore $20 + 10$ is 30 and 1 more is 31.

Instruction and Strategies:

The Anticipatory Set is to heighten the interest of students to use efficient and flexible strategies and to be held accountable to justify their thinking.

Part I: From Guided practice Part 1, **write a problem on the board, overhead or document camera. In guided practice Part I, as whole group instruction, encourage students to solve it by mental math and communicate their thinking out loud as you record their thinking to help others visualize the thinking process. Ask such questions as: “Can someone think of another way? Can you explain in your own words (student name’s) thinking?”**

Part II: *Students will use a Think-Pair-Share Strategy.* (Marzano, Cooperative Learning). From Guided Practice Part 2, **write the word problem on the board, overhead, or document camera, or provide students with a printed version that they may also use to show their work.**

Then have them turn to a partner and share their strategy. If you observe that a pair of students arrived at the same method of solving the problem, challenge them to brainstorm together to find a second way to solve or represent the problem.

As students are working the problem, circulate around the room to observe student strategies and choose which strategies will be shared out to the class. An effort should be made to find strategies that compare and contrast student’s flexible and efficient thinking. (Marzano: Identifying Similarities and Differences, Cooperative Learning) The value of group discussions and modeling is evident when students gather insights from their classmates that will reinforce basic number sense and develop strategies that will help them become better at mental computation

Guided Practice:

Part I. Write each example on the board, overhead, or document camera:

Example #1: $150 + 70$

Whole class: Have students share out possible ways of solving.

Students may solve this problem in a variety of ways. Some possible solutions are:

$150 + 50$ is 200 and 20 more is 220.

$50 + 70$ is 120 and 100 more is 220.

$100 + 70$ is 170, 30 more is 200 and 20 more is 220.

Example #2: $500 - 120$

Students may solve this problem in a variety of ways. Some possible solutions are:

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500 – 100 is 400, then 400 – 20 is 380.

500 – 20 is 480, then 480 – 100 is 380.

You need 80 more to get to 200 from 120, then 300 more to get to 500, so the answer is $80 + 300$, or 380. Note: Students who use this method are actually finding the *difference* between the two numbers and not simply “taking away.” This is a wonderful opportunity to discuss different approaches to subtraction.

If students are struggling with this task, demonstrate and encourage the use of an empty number line until they are able to visualize the leaps of ones, tens, or hundreds. (Marzano: Nonlinguistic Representations)

Resource: [Mental Math Alternate Strategy](#) (online “jump method”)

Part II: Write the word problem below on the board, overhead, or document camera, or provide students with a printed version that they may also use to show their work: (Marzano, Cooperative Learning)

Have students read the problem aloud in class a couple of times. Ask students to describe what the problem is asking and how the numbers relate to each other.

Problem: Juan’s school is collecting aluminum cans. Last Friday there were 399 cans; now there are 573. How many more aluminum cans have been collected?

Students may use several approaches to solve the problem including the traditional algorithm. Examples of other methods students may use are listed below:

$399 + 1 = 400$, $400 + 100 = 500$, $500 + 73 = 573$, therefore $1 + 100 + 73 = 174$ additional cans (Adding up strategy)

$400 + 100$ is 500; $500 + 73$ is 573; $100 + 73$ is 173 plus 1 (for 399, to 400) is 174 (Compensating strategy)

Take away 73 from 573 to get to 500, take away 100 to get to 400, and take away 1 to get to 399. Then $73 + 100 + 1 = 174$ (Subtracting to count down strategy)

$399 + 1$ is 400, 500 (that’s 100 more). 510, 520, 530, 540, 550, 560, 570, (that’s 70 more), 571, 572, 573 (that’s 3 more) so the total is $1 + 100 + 70 + 3 = 174$ (Adding by tens or hundreds strategy)

Select the different strategies. *Choose a student(s) to share out with the whole class. If multiple strategies do not come from students, choose one or more strategies as having come from previous student work in another school year. Students would then explain the thinking of “that student’s” solution to the problem.*

Formative Assessment:

The debrief is a perfect time to check for understanding by asking other students to: clarify what was presented, restate the solution in their own words, explain in their own words why a solution works, see if a diagram can match the thinking process ([Mental Math Alternate Strategy](#)) (online resource for “split and jump methods”), see if a diagram could be described in words or in a number sentence

Closure:

Exit Card: On a half sheet of paper, type the following problem and distribute it to partners 8–10 minutes before class ends. If time permits, have students show two different strategies. Collect before the end of math time and preview before next math class to plan instructional decisions and assess student misconceptions. (Marzano, Cooperative Learning)

Problem: Paula and her brother have a seashell collection. Paula has collected 576 shells and her brother has collected 298. How many seashells do they have altogether? Show and explain how you found your answer.

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Return to focus question so students can articulate what type of strategy they find most efficient in adding numbers.

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- Have students work with smaller single-digit or double-digit numbers initially for differentiation.
- Have students use number lines and place value blocks to help them conceptualize their mental math strategies. (Marzano: Nonlinguistic Representations)
- Have students work with a partner or in small groups to develop strategies. (Marzano: Cooperative Learning)
- Students who struggle with math reasoning often have difficulty communicating their thinking. Extra sensitivity and encouragement must be shown for these students as they develop and strengthen these sets of process skills. Questioning can scaffold students who are challenged by discussing their math thinking. (Marzano: Cues, Questions, and Advance Organizers)

Resources (Textbook and Supplemental):

- *Teaching Student Centered Mathematics, 2014, John, A. Van de Walle, Karen S. Karp, LouAnn H Lovin, and Jennifer M. Bay-Williams* is an excellent resource for developing conceptual and alternative strategies for teaching the common core standards.
- [Mental Math Helpful Facts](#) (Teacher background information as well as student practice materials on the topic of elementary mental math strategies)
- [Mental Math Alternate Strategy](#) (Mental computation strategies with some fun graphics to demonstrate the strategies. Take note of the “split method” for adding numbers.)
- [Speed Grid Challenge Game](#) (A fun race against time using mental addition skills.)

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Content: Math	Grade/Course: 3	Timeline: 60 minutes
Standard(s): 3.OA.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. 3.OA.3 Use <u>multiplication</u> 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. Mathematical Practices: 1. Make sense of problems and persevere in solving them, 4. Model with mathematics, 7. Look for and make use of structure		
Lesson Overview: Students will use a variety of strategies to solve a word problem. Depending on the student's reasoning and understanding of the problem, this could be solved using multiplication and/or acted out through manipulatives. Regardless of how the problem is solved, it is important that students use words, numbers, and pictures to communicate their reasoning.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none"> • Read, interpret, and solve word problems dealing with multiplication. • Solve a word problem in multiple ways. • Engage in rich group discussions about various strategies used to find the answers to a word problem. • Explain their strategy used and justify their thinking and the reasonableness of the solution in the context of the problem.
Vocabulary: Equal groups, factor, groups of, multiplicand, multiplier, multiplication, product, strategy, justify your thinking (be able to explain your thinking)		Focus Question(s): <ul style="list-style-type: none"> • What is a rectangular array? • What types of questions are asked with multiplication problems? • Which strategies seem to be efficient, quick, and simple?
Description of Lesson (including instructional strategies): Anticipatory Set: Before the start of the lesson, make available to students drawing paper, manipulatives (counters, blocks or linking cubes), or any other materials that will help them visualize the problem. Start the lesson with 12 counters or interlocking cubes placed randomly on an overhead projector or a document camera. "Remember, in second grade you learned how to find the total number of objects using rectangular arrays. What is a rectangular array? How many different rectangular arrays can we arrange with these 12 counters (or linking cubes)?" Be explicit in describing the combinations that students give. For instance, 2×6 would be 2 groups of 6 in a group, whereas, 6×2 would be 6 groups of 2 in a group. (MP 4) Though in each case, there is a total of 12, the orientation as well as the language is different. (Marzano, Identifying Similarities and Differences) (MP 7) This is fundamental for the Commutative Property of Multiplication and later the Distributive Property over addition or subtraction. Examples: $6 \times 2 = 2 \times 6$; $2(3 + 4) = (2 \times 3) + (2 \times 4)$; $2(3 - 4) = (2 \times 3) - (2 \times 4)$ Instruction and Strategies: <ol style="list-style-type: none"> 1. Facilitate the Anticipatory Set 		

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2. **Partner students.** (Marzano, Cooperative Learning) Students will do a similar activity with 24 (counters, blocks, or linking cubes). **Introduce this problem:** “Guam’s CoCo-Jo’s makes great cookies. When Denise Selk starting making cookies, she used a baking sheet that could fit 24 cookies on it. Help her decide how to arrange the cookies on the baking sheet. What are all the possible rectangular arrays she could use to arrange the cookies on the cookie sheet? Which rectangular array(s) seem to work best and why?” (There is a video in the resources detailing how the Selks’, the business owners of CoCo-Jo’s, cookie business got started. It is about 10 minutes long; preview the video and decide if any part of it might interest third graders. It can provide a backdrop for this problem and the one used as the main task of this lesson.) **Explain that the rectangular array student sheet (Attached) simulates nine cookie sheets. Students will use the manipulatives to make the different arrays and then transfer their models as pictures on the sheet. This time provides an opportunity to visit student pairs to assess their progress. Students should come up with all 8 combinations and draw pictures of the combinations on the Rectangular Array Record Sheet. (See attachment) Ask them how the pictures are the same and how they are different. Have them discover with their partner which ones have the same factors but have a different orientation.** (Marzano, Identifying Similarities and Differences, Nonlinguistic Representations)
3. **Begin: The Cookie Problem** (See attachment for student copy and where students can show their work) **Have students read the problem aloud in class a couple of times. Ask students to describe what the problem is asking and how the numbers relate to each other.** (MP 1) (Marzano, Identifying Similarities and Differences, Nonlinguistic Representations, Cues, Questions, and Advance Organizers) **Use questions such as:**
 - How would you describe the problem in your own words?
 - How would you describe what you are trying to find?
 - What information is given in the problem?
 - Describe the relationship between the numbers.
 - What are some other strategies you might try?
 - How else might you organize...? Represent...? Show...?
4. There are several strategies students may choose to use. Listed are several different possibilities and more are possible. Regardless of how the problem is solved, it is important that students use words, numbers, and pictures to communicate their reasoning. (Marzano, Nonlinguistic Representations)(MP 4)
 - Drawings of boxes, bags and cookies
 - Using the provided manipulatives
 - Using repeated addition strategies
 - Using any combinations of multiplication strategies

As students work on the problem, walk around and make note of which strategies will be beneficial to use in a whole class debrief of the problem. For example, with a comparison of a picture, repeated addition and multiplication could be one choice. **The “debrief” is the most important part of the lesson. It is where students learn other student strategies that help them get a deeper understanding of the mathematics and flexible thinking.**
5. **Some questions that promote rich student thinking are listed:** (Marzano, Cues, Questions, and Advance Organizers)
 - How did you think about that?
 - How did you figure it out?
 - What did you do next?
 - What strategy did you use? Tell me more.
 - Who would like to share their thinking?

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- Did someone solve it a different way?
- Who else used this strategy to solve the problem? Do you want to add anything?
- What strategies do you see being used?
- Which strategies seem to be efficient, quick, and simple?

Guided Practice:

- The Anticipatory Set is a good modeling example that also works for articulating the language of multiplication
- *In Steps 1, 2, and 3 questioning is used to help students process their thinking and deepen mathematical concepts. In Steps 1, 2, and 3 walking about and observing partner work, provide an opportunity to pose and ask clarifying questions.*

Formative Assessment:

The questions listed in the presentation of the task and in the “debrief” best serve to facilitate student mathematical understanding.

Closure:

After the “debrief,” **lead a discussion around the following questions:** *“Which strategies seem to be efficient, quick, and simple? Which strategy was new to you and what did you learn from the new strategy?”*

Independent Practice:

Students can begin to practice similar problems using problems such as the ones that are included on this [Multiplication Word Problems](#) practice page.

Accommodations/Modifications:

- Providing manipulatives will help students who are not yet quite ready to deal with number strategies
- Some students are always eager to share their strategy. Prompt these students to wait until other student strategies are shared to see if can yet come up with another strategy not already presented.

Resources (Textbook and Supplemental):

- [CoCo Jo's Video](#) (video of the Selks’ small business, CoCo-Jo’s, and the success of making and marketing their cookies)
- [Multiplication Word Problems](#)
- [Resources](#) (Excellent website for mathematics resources)

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Rectangular Array Record Sheet

How many different arrays can be made with 24 counters (or blocks)? Draw each array in a separate space and identify the number of groups and how many are in the group.

<div></div> <p>_____ Groups of _____ in a Group</p>	<div></div> <p>_____ Groups of _____ in a Group</p>	<div></div> <p>_____ Groups of _____ in a Group</p>
<div></div> <p>_____ Groups of _____ in a Group</p>	<div></div> <p>_____ Groups of _____ in a Group</p>	<div></div> <p>_____ Groups of _____ in a Group</p>
<div></div> <p>_____ Groups of _____ in a Group</p>	<div></div> <p>_____ Groups of _____ in a Group</p>	<div></div> <p>_____ Groups of _____ in a Group</p>

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The Cookie Problem



Guam's "CoCo-Jo's" sell tasty cookies. They ship the cookies in boxes. Each box has two bags. In each bag, there are 6 cookies.

At Machananao Elementary School, the third grade classes won a school competition. There are four third-grade teachers. Each teacher bought one box of CoCo-Jo's cookies for their students. How many cookies did the teachers buy?

Show two different strategies to solve this problem. You may use pictures and write matching number sentences. Be able to explain your thinking.

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Content: Math	Grade/Course: 3	Timeline: 60 minutes
Standard(s): 3.OA.3 Use multiplication and <u>division</u> 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. Mathematical Practices: 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. Models with mathematics, 5. Use appropriate tools strategically.		
Lesson Overview: Students will draw objects in arrays and equal groups and write equations to solve division word problems. They will explain the connection between their drawing and the equations to the division word problems.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">Justify in words the relationship between a drawing and the equation that are used to solve a division word problem.
Vocabulary: partition division, measurement division, distribution, division, equal arrays, equal groups		Focus Question(s): How does drawing a picture and writing an equation help you solve a division word problem?
Description of Lesson (including instructional strategies): Anticipatory Set: Teacher Preparation: Make copies of “Word Problem Solving Steps Flow Chart” (see attachment) for each student and an enlarge copy for modeling. Pair students up. “Let’s review the 4 steps we take to solve word problems. From your flow chart, we see the first step is UNDERSTAND. Think of the word “understand.” What does this word mean to you?” Give students a few seconds to think quietly to themselves about the question. Tell students: “Pair up with your partner and share your ideas.” (Think-Pair-Share strategy) What questions do we ask ourselves to help us UNDERSTAND the problem? Repeat for the next three problem solving steps (Marzano: Cues, Questions, and Advanced Organizers and Cooperative Learning). Instruction and Strategies: <ol style="list-style-type: none">Facilitate the anticipatory set.Introduce the following problem: #1 (see Equal Groups worksheet attachment) Model solving the problem using the 4 Word Problem Solving Steps—referring to completed flow chart. Students will actively listen while you model. “I will first need to UNDERSTAND what the problem is asking me. (How many guavas are in each basket?) What information do I already know? (There 10 guavas and 2 baskets) Now, I will PLAN what strategy I can use to solve my problem. I need to show how many guavas I can fit in each basket, so I will draw a picture. I can now SOLVE. (Model with drawing objects on board.) The last thing I need to do is CHECK if my answer is correct. Did I use all the guavas and fill the 2 baskets? (Yes) What other strategy can I use? I can draw an array. (Model array drawing on board.) I have 2 baskets; therefore I need 2 rows (draw 2 parallel vertical lines). I now divide the 10 guavas equally into each basket. Finally, I’m able to write an equation to show my answer ($10 \div 2 = 5$). I can explain relationship the between my drawings and the equation by saying, ‘I know that $10 \div 2 = 5$ because when I took the 10 guavas and put one each basket at a time until all the guavas were gone. I		

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counted a group of 5 guavas in each basket.”

3. Repeat procedure for item #2 on Equal Groups worksheet. Students follow along to complete item #2 worksheets as you model.

Guided Practice:

Students can begin to practice similar problems in pairs using items #3–5 in the Equal Groups worksheet. Facilitate to ensure that students are explaining the relationship between their drawing and the equation. Students will record their justification on the relationship between their drawing and equation

Formative Assessment:

Fingers-Up strategy: Students will indicate their degree of understanding by using a 1, 2, 3 scale. (1: Don’t understand, 2: Some understanding, but need more clarification, and 3: Got it!) Use this strategy as you ask students about specific word problems as you are moving through this lesson.

Closure:

Application Cards—Students think of a way to apply their new knowledge or skill in the real world and write it down on an index card. Collect the cards and either share them anonymously with the class or keep them to review privately.

Independent Practice:

Students can begin to practice similar problems independently using items #6 –10 in the Equal Groups worksheet. Facilitate to ensure that students are explaining the relationship between their drawing and the equation.

Accommodations/Modifications:

Provide students with manipulatives to represent groups. Model how to use the manipulatives to represent groups by separating counters into different number of groups in various sets. Peer modeling will be used to show students how to visualize and illustrate division equations on paper.

Resources (Textbook and Supplemental):

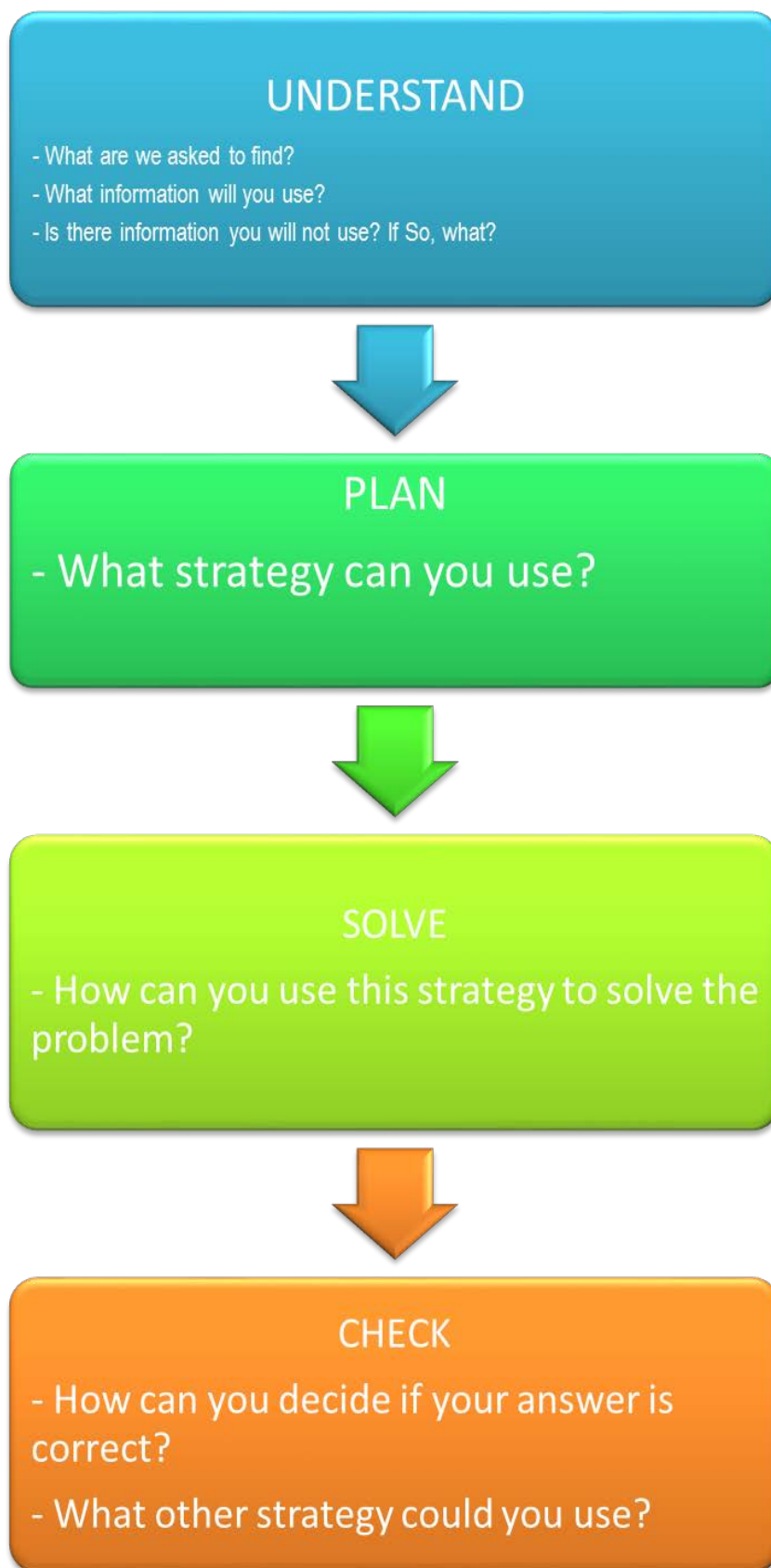
- Teacher-made practice worksheet
- flow chart
- manipulatives

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Teacher Flow Chart

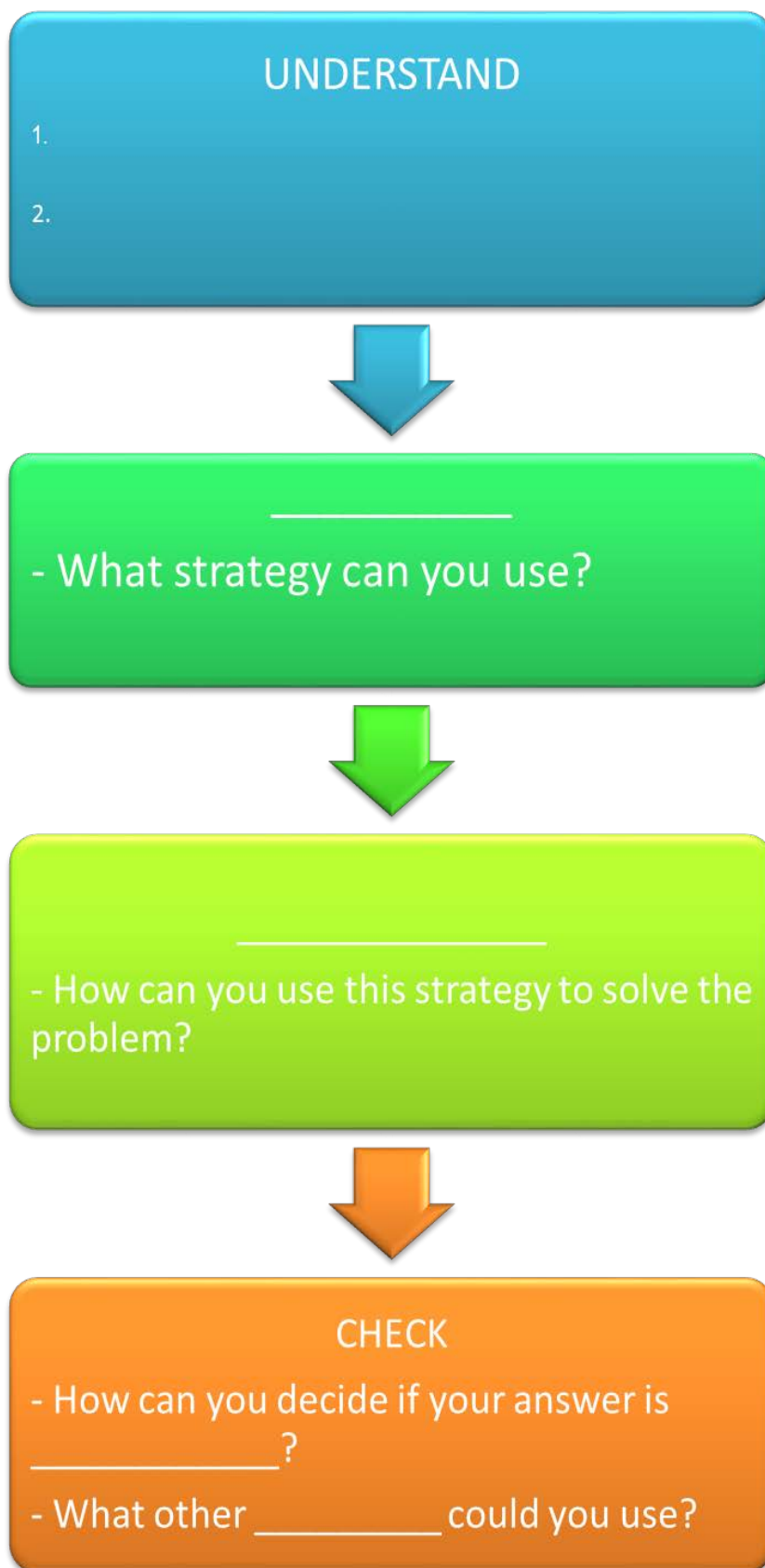


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Student Flow Chart



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Name: _____

Equal Groups

1. You have 10 guavas. You have 2 baskets. Each basket has the same number of guavas.
How many guavas are on each basket?

Draw an equal groups picture.

Division problem: _____

2. You have 25 pencils. There are 5 kids. Each kid gets the same number of pencils.
How many pencils does each kid get?

Draw an equal groups picture.

Division problem: _____

3. You have 32 oranges. You have 8 bowls. Each bowl gets the same number of oranges.
How many oranges are in each bowl?

Draw an equal groups picture.

Division problem: _____

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4. You have 27 baseball bats. You have 3 bags. Each bag gets the same number of baseball bats.
How many baseball bats are in each bag?

Draw an equal groups picture.

Division problem: _____

5. You have 45 fish. You have 9 fish tanks. Each tank has the same number of fish.
How many fish are in each tank?

Draw an equal groups picture

Division problem: _____

6. You see 56 marbles. You see 8 bags. Each bag has the same number of marbles.
How many marbles are in each bag?

Draw an equal groups picture.

Division problem: _____

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7. There are 20 kids going on a field trip. 4 kids can fit into one car.
How many cars do we need?

Draw an equal groups picture.

Division problem: _____

8. Carl has 35 toys and only 7 toys can fit in a box. How many boxes will he need?

Draw an equal groups picture

Division problem: _____

9. Cathy has 48 books. She has a bookshelf with 8 shelves on it. Each shelf has the same number of books.
How many books will be on each shelf?

Draw an equal groups picture.

Division problem: _____

10. You have 100 pieces of candies. There are 20 pieces of candies in a bag.
How many bags can I fill?

Draw an equal groups picture.

Division problem: _____

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Content: Math	Grade/Course: 3	Timeline: 60 minutes
Standard(s): 3.OA.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.		
Mathematical Practices: 3. Construct viable arguments and critique the reasoning of others, 4. Models with mathematics, 7. Look for and make use of structure, 8. Look for and express regularity in repeated reasoning.		
Lesson Overview: In this lesson, students are learning to identify words in problems that signify a specific mathematical operation. They will use this to write and solve equations for word problems.	Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">• Identify math operational clue words.• Solve two-step multiple operation word problems.• Work in cooperative groups in order to plan, devise, implement, and reflect on their solution.	
Vocabulary: Reinforce previous vocabulary related to the operations.	Focus Question(s): How did you determine what clue words helped you to solve the two-step word problem?	
Description of Lesson (including instructional strategies): Anticipatory Set: <i>Four Corners (Greensteien, L., 2010) using mathematical operation symbols in which students will attach the matching clue word to the symbols on the corners of the wall.</i>		
Instruction and Strategies: Model the 4 Steps to Problem Solving in order to solve a two-step math problem. Provide a word problem such as: Malcolm cut 3 pies into 10 pieces each and 2 pies into 8 pieces each. Step 1: Identify required information. What is the problem asking for? What is the problem dealing with? Focus on the last question in the problem. Step 2: Discuss/Share what strategies will be used. Step 3: Using the strategy of highlighting key points (numbers, clue words, and symbols), demonstrate how to identify clue words and proceed to solve the problem. Step 4: Reflect on the problem and the solution. Facilitate the process using a new problem with the whole class by prompting students to demonstrate their understanding of the 4 Steps to Problem Solving.		
Guided Practice: <ul style="list-style-type: none">• <i>Students in their cooperative groups will be given a two-step word problem for which they will follow the four steps to problem solving (1. Understanding the Problem. 2. Devising a Plan. 3. Carrying Out the Plan. 4. Looking Back.) (The 4 Steps To Problem Solving: 4 Steps to Problem Solving)</i>		

Instructions that are italicized include students engagement strategies.

Instructions that are underlined embed checking for understanding.

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- Call on different groups to share how they did with each step followed by whole class confirmation (i.e., thumbs up or thumbs down).

Formative Assessment:

Four Corners (Greensteien, L., 2010) using mathematical operation symbols in which students will attach the two-step word problem to the symbols on the corners of the wall. (Between the corners can indicate more than one operation is possible; ex: multiplication or addition can be used for that problem.)

Closure: To debrief, lead a discussion around the following question: How did you determine what clue words helped you to solve the two-step word problem? How did you feel about the 4 Step process?

Independent Practice:

This concept not yet fully developed for students to work independently.

Accommodations/Modifications:

- Learning centers for those advanced students to continue practicing additional problems on their own.
- For those needing 1:1 assistance, do small groups and reteach one-step word problems before re-teaching two-step word problems.

Resources (Textbook and Supplemental):

- Harcourt Math, 4 Steps to Problem Solving
- [4 Steps to Problem Solving](#)
- Four Corners words and phrases for math symbols (attached)
- <http://www.math-aids.com>

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Instructions that are underlined embed checking for understanding.

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Four Corners

plus	and	total of
increased by	combined	add
together	more than	added to
make	subtract	gave
decrease by	fewer	minus

Instructions that are italicized include students engagement strategies.

Instructions that are underlined embed checking for understanding.

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fewer than	less than	difference
times	triple	double
multiplied by	of	increased by a factor
multiple	per	quotient of
compared to	split up	divided by

Instructions that are italicized include students engagement strategies.

Instructions that are underlined embed checking for understanding.

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half	divided into	is
were	was	will be
yields	altogether	sum
in all	less	product
take away	shared	twice

Instructions that are italicized include students engagement strategies.

Instructions that are underlined embed checking for understanding.

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Standard Number	GDOE Content Standard		SAT 10 Objectives
Standard 1: Science As Inquiry	3.1.1	Generate a question that can be answered by science and develop a hypothesis based on observations.	-Evaluate an experimental procedure -Evaluate the methods of reporting quantitative data
Standard 1: Science As Inquiry	3.1.2	Answer questions by safely collecting and analyzing data.	-Evaluate an experimental procedure
Standard 1: Science As Inquiry	3.1.3	Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.	-Evaluate an experimental procedure -Evaluate methods of reporting quantitative data
Standard 2: Life Science	3.2.1	Demonstrate that living things can be sorted into groups in many ways using various features. <i>EXAMPLE(S):</i> Group plants and animals of Guam according to various features, such as how they look, where they live, and how they act.	-Recognize the relationship between the number of organisms and available resources
Standard 2: Life Science	3.2.2	Observe that and describe how offspring are very much, but not exactly, like their parents and like one another.	N/A
Standard 2: Life Science	3.2.3	Describe that almost all kinds of animals' food can be traced back to plants.	-Identify parts of a natural environment -Identify the role of given organisms in an ecosystem -Infer methods of seed dispersal based on the form of fruits
Standard 2: Life Science	3.2.4	Give examples of some kinds of organisms that have completely disappeared and explain how these organisms were similar to some organisms living today. <i>EXAMPLE(S):</i> Describe how some of our local birds were endangered when the brown tree snake was accidentally introduced onto Guam.	-Identify parts of a natural environment -Identify the role of given functions of structures in organisms -Recognize the relationship between the number of organisms and available resources

Standard Number	GDOE Content Standard		SAT 10 Objectives
Standard 3: Physical Science	3.3.1	Use size, capacity, and mass to describe objects. <ul style="list-style-type: none"> • Matter: anything that has mass and takes up space • Mass: a measure of how much matter is in an object 	<ul style="list-style-type: none"> -Apply an understanding of functions of structures in organisms -Infer methods of seed dispersal based on the form of fruits
Standard 3: Physical Science	3.3.2	Illustrate how objects change during an investigation.	<ul style="list-style-type: none"> -Recognize commonalities in the life cycles of organisms -Identify the changes in organisms' life cycles -Identify the role of given organisms in an ecosystem
Standard 3: Physical Science	3.3.3	Investigate and describe how moving air and water can be used to run machines, like windmills and waterwheels.	<ul style="list-style-type: none"> -Make an inference based on an understanding of changes in properties of matter -Identify the basic characteristics of matter
Standard 3: Physical Science	3.3.4	Describe how magnets and static electricity can affect the movement of objects.	<ul style="list-style-type: none"> -Identify a source of heat in a changing system -Identify a result of friction -Predict the effects of forces on an object
Standard 3: Physical Science	3.3.5	Describe the characteristics of different kinds of energy.	<ul style="list-style-type: none"> -Predict the effects of forces on an object -Identify the forces that cause motion -Interpret graphs of information -Using graphing information to make an inference
Standard 4: Earth and Space Science	3.4.1	Give examples of how change is a repeated process occurring on Earth.	<ul style="list-style-type: none"> -Analyze models of light behavior -Identify a source of heat in a changing system -Predict the results of heat transfer in objects
Standard 4: Earth and Space Science	3.4.2	Identify some ways that human activities affect weather.	<ul style="list-style-type: none"> -Analyze models of light behavior -Identify a source of heat in a changing system -Predict the results of heat transfer in objects
Standard 4: Earth and Space Science	3.4.3	Describe ways that human beings protect themselves from adverse weather conditions. <i>EXAMPLE(S):</i> How do people on Guam prepare for a typhoon?	<ul style="list-style-type: none"> -Make an inference based on an understanding of changes in properties of matter -Identify sources of energy for Earth systems -Make an inference supported by given fossil evidence

Standard Number	GDOE Content Standard		SAT 10 Objectives
Standard 4: Earth and Space Science	3.4.4	Use pictures and words to describe natural phenomena.	-Make an inference based on an understanding of changes in properties of matter -Predict the results of heat transfer in objects -Predict the effects of forces on an object -Identify the causes of sound
Standard 4: Earth and Space Science	3.4.5	Observe and illustrate the different features of our island. <i>EXAMPLE(S):</i> a model of our island's topography showing the high and low points	-Use observations to infer weather conditions -Identify the results of motion of Earth -Identify a source of heat in a changing system
Standard 4: Earth and Space Science	3.4.6	Observe and describe the Moon phases. <i>EXAMPLE(S):</i> Use models to demonstrate the movement of the Moon around the Earth and the Earth around the Sun.	-Use observations to infer weather conditions -Analyze models of soil characteristics
Standard 4: Earth and Space Science	3.4.7	Observe and describe the motion of the Sun and Moon over a time span of 1 day.	N/A
Standard 4: Earth and Space Science	3.4.8	Describe the Earth's relationship to the Moon, stars, and other planets. <i>EXAMPLE(S):</i> Build a model of the solar system.	-Use observations to infer weather conditions -Identify the results of motion of Earth -Predict the results of heat transfer in objects
Standard 5: Science and Technology	3.5.1	Describe some ways in which technological developments in fields such as transportation or communication have influenced society. <i>EXAMPLE(S):</i> Discuss how inventions, such as cars, computers, and electric motors, have affected the way we live.	-Identify parts of a natural environment -Identify the role of given organisms in an ecosystem -Identify sources of energy for Earth systems
Standard 5: Science and Technology	3.5.2	Describe how discarded products contribute to the problem of waste disposal and how recycling can help solve this problem.	-Analyze models of soil characteristics
Standard 5: Science and Technology	3.5.3	Recognize that the decision to use a particular technology depends on the expected benefits, anticipated risks, and cultural values. <i>EXAMPLE(S):</i> Compare and contrast the proa (outrigger canoe) to the fishing boats of today.	-Use a model to apply an understanding of planet motion -Make an inference from data of star characteristics



GUAM District Level Curriculum Map

Grade 3 –Science Quarter 1

<p>Big Idea 1, Quarter 1: The student will be able to compare and contrast living things based on their traits, ecosystems, and the effects of their environment.</p>	<p>Essential Question(s): Why are many of our local birds endangered or extinct? How do the traits of plants and animals affect the way they live? What characteristics do offspring have that are the same as their parents? What differences exist between parents and their offspring?</p>
<p>Guam Standards:</p> <p>3.2.1 Demonstrate that living things can be sorted into groups in many ways using various features. <i>EXAMPLE(s):</i> Group plants and animals of Guam according to various features, such as how they look, where they live, and how they act.</p> <p>3.2.2 Observe that and describe how offspring are very much, but not exactly, like their parents and like one another.</p> <p>3.2.3 Describe that almost all kinds of animals' food can be traced back to plants.</p> <p>3.2.4 Give examples of some kinds of organisms that have completely disappeared and explain how these organisms were similar to some organisms living today. <i>EXAMPLE(s):</i> Describe how some of our local birds were endangered when the brown tree snake was accidentally introduced onto Guam.</p>	<p>CCSS ELA Standards:</p> <p>3.RI.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.</p> <p>3.RI.9 Compare and contrast the most important points and key details presented in two texts on the same topic.</p>

Suggested Timeline: 4 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 1: The student will be able to use the scientific method to conduct an experiment.</p>	<p>Essential Question(s): What are the possible conditions that change matter? What does it mean to say that an object has mass? How is mass different from matter?</p>
<p>Guam Standards:</p> <p><i>3.1.1 Generate a question that can be answered by science and develop a hypothesis based on observations.</i></p> <p><i>3.1.2 Answer questions by safely collecting and analyzing data.</i></p> <p><i>3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.</i></p> <p>3.3.1 Use size, capacity, and mass to describe objects.</p> <ul style="list-style-type: none"> • Matter: anything that has mass and takes up space • Mass: a measure of how much matter is in an object <p>3.3.2 Illustrate how objects change during an investigation.</p>	<p>CCSS ELA Standards:</p> <p>3.W.7 Conduct short research projects that build knowledge about a topic.</p>

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 2: The student will be able to demonstrate their knowledge of how weather and living conditions affect each other.</p>	<p>Essential Question(s): What are some ways people prepare for natural disasters? How can natural and human activities affect weather? How do the features of our island affect our lives?</p>
<p>Guam Standards:</p> <p>3.4.2 Identify some ways that human activities affect weather.</p> <p>3.4.3 Describe ways that human beings protect themselves from adverse weather conditions. <i>EXAMPLE(S):</i> How do people on Guam prepare for a typhoon?</p> <p>3.4.4 Use pictures and words to describe natural phenomena.</p> <p>3.4.5 Observe and illustrate the different features of our island. <i>EXAMPLE(S):</i> a model of our island’s topography showing the high and low points</p>	<p>CCSS ELA Standards:</p> <p>3.RI.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).</p> <p>3.RI.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).</p>

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 2: The student will be able to analyze the advantages and disadvantages of technology.</p>	<p>Essential Question(s): How does technology affect your life? What would the world be like without technology?</p>
<p>Guam Standards:</p> <p>3.5.1 Describe some ways in which technological developments in fields such as transportation or communication have influenced society. <i>EXAMPLE(S):</i> Discuss how inventions, such as cars, computers, and electric motors, have affected the way we live.</p> <p>3.5.3 Recognize that the decision to use a particular technology depends on the expected benefits, anticipated risks, and cultural values. <i>EXAMPLE(S):</i> Compare and contrast the proa (outrigger canoe) to the fishing boats of today.</p>	<p>CCSS ELA Standards:</p> <p>3.RI.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.</p> <p>3.RI.6 Distinguish their own point of view from that of the author of a text.</p> <p>3.W.1a-d 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) Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</p>

Suggested Timeline: 2 weeks

<p>Big Idea 3, Quarter 2: The student will be able to use the scientific method to conduct an experiment.</p>	<p>Essential Question: What are the different elements of the scientific method? Why is each element important?</p>
<p>Guam Standards:</p> <p>3.1.1 <i>Generate a question that can be answered by science and develop a hypothesis based on observations.</i></p> <p>3.1.2 <i>Answer questions by safely collecting and analyzing data.</i></p> <p>3.1.3 <i>Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.</i></p>	<p>CCSS ELA Standards:</p> <p>3.W.7 Conduct short research projects that build knowledge about a topic.</p>

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 3: Students will be able to illustrate the phases of the moon to include the changes that occurs on Earth (seasons).</p>	<p>Essential Question(s): Why do we have different seasons? Why does the moon seem to change shape? What changes happen on Earth when the moon shapes change?</p>
<p>Guam Standards:</p> <p>3.4.1 Give examples of how change is a repeated process occurring on Earth.</p> <p>3.4.6 Observe and describe the Moon phases. <i>EXAMPLE(S):</i> Use models to demonstrate the movement of the Moon around the Earth and the Earth around the Sun.</p>	<p>CCSS ELA Standards:</p> <p>3.RI.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.</p> <p>3.RI.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).</p> <p>3.W.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.</p>

Suggested Timeline: 2 weeks

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 3: Students will build a model of the solar system to demonstrate the motion of the sun and moon.</p>	<p>Essential Question(s): How do the sun and moon appear to travel in the sky? What is the relationship between Earth and the moon, stars, and other planets?</p>
<p>Guam Standards: 3.4.7 Observe and describe the motion of the Sun and Moon over a time span of 1 day. 3.4.8 Describe the Earth’s relationship to the Moon, stars, and other planets. <i>EXAMPLE(s):</i> Build a model of the solar system.</p>	<p>CCSS ELA Standards: 3.RI.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. 3.W.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 related to the information or explanation presented.</p>

Suggested Timeline: 2 WEEKS

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 3, Quarter 3: Students will explain the cause and effect of pollution and how recycling helps reduce pollution.</p>	<p>Essential Question(s): How can recycling help reduce waste disposal? What are the environmental benefits of recycling? In one week’s time, what percentage of your trash can be recycled and how can you reduce/reuse the trash?</p>
<p>Guam Standards:</p> <p>3.5.2 Describe how discarded products contribute to the problem of waste disposal and how recycling can help solve this problem.</p> <p>3.1.1 <i>Generate a question that can be answered by science and develop a hypothesis based on observations.</i></p> <p>3.1.2 <i>Answer questions by safely collecting and analyzing data.</i></p> <p>3.1.3 <i>Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one’s own conclusions about findings.</i></p>	<p>CCSS ELA Standards:</p> <p>3.RI.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.</p> <p>3.W.2a-d 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 related to the information or explanation presented.</p>

Suggested Timeline: 2 WEEKS

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 4: Students will describe the characteristics of different kinds of energy and how water and air can move objects.</p>	<p>Essential Question(s): How can air and water be used to run machines? How can you demonstrate ways energy can be used to move objects? What sources of energy are there and what are the different forms of energy?</p>
<p>Guam Standards: 3.3.3 Investigate and describe how moving air and water can be used to run machines, like windmills and waterwheels. 3.3.5 Describe the characteristics of different kinds of energy.</p>	<p>CCSS ELA Standards: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.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. 3.W.2a-d 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 related to the information or explanation presented.</p>

Suggested Timeline: 2 WEEKS

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 4: Students will be able to distinguish how magnets and static electricity affect the movement of objects.</p>	<p>Essential Question(s): What is a magnet? What is static electricity? How can magnets and static electricity affect the movement of objects? How is magnetic energy different from static energy?</p>
<p>Guam Standards:</p> <p>3.3.4 Describe how magnets and static electricity can affect the movement of objects.</p> <p>3.1.1 <i>Generate a question that can be answered by science and develop a hypothesis based on observations.</i></p> <p>3.1.2 <i>Answer questions by safely collecting and analyzing data.</i></p> <p>3.1.3 <i>Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one’s own conclusions about findings.</i></p>	<p>CCSS ELA Standards:</p> <p>3.RI.9 Compare and contrast the most important points and key details presented in two texts on the same topic.</p> <p>3.W.7 Conduct short research projects that build knowledge about a topic.</p>

Suggested Timeline: 1 week

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized



<p>Big Idea 1, Quarter 1 The student will be able to compare and contrast living things based on their traits, ecosystems, and the effects of their environment.</p>	<p>Essential Question(s): Why are many of our local birds endangered or extinct? How do the traits of plants and animals affect the way they live? What characteristics do offspring have that are the same as their parents? What differences exist between parents and their offspring?</p>
<p>Guam Standards:</p> <p>3.2.1 Demonstrate that living things can be sorted into groups in many ways using various features. <i>EXAMPLE(S):</i> Group plants and animals of Guam according to various features, such as how they look, where they live, and how they act.</p> <p>3.2.2 Observe that and describe how offspring are very much, but not exactly, like their parents and like one another.</p> <p>3.2.3 Describe that almost all kinds of animals' food can be traced back to plants.</p> <p>3.2.4 Give examples of some kinds of organisms that have completely disappeared and explain how these organisms were similar to some organisms living today. <i>EXAMPLE(S):</i> Describe how some of our local birds were endangered when the brown tree snake was accidentally introduced onto Guam.</p>	<p>CCSS ELA Standards:</p> <p>3.RI.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.</p> <p>3.RI.9 Compare and contrast the most important points and key details presented in two texts on the same topic.</p>
<p>Elements of the Standard(s) – What's the meaning? Lessons for this Big Idea will focus on living things.</p> <ul style="list-style-type: none"> Students will delve into living things and explore living things' traits. For plants, they should know the names and functions of the major parts of the plant (roots, leave, stem, flowers). Each part has a special function in order for the plant to survive. Students will research ecosystems and how living things affect the environment in which they live. A variety of ecosystems and communities exist on Earth. Ecosystems are dynamic interactions between organisms and their environment. Each has distinct characteristics and components that allow certain organisms to thrive. More specifically, students should learn that plant growth and survival are determined by a combination of environmental conditions. For example: drought conditions diminish plant growth and health, and flooding or plants standing in water can have the same effect. Soil nutrients are another part of the ecosystem that impacts plant growth. Students should also study a food web for animals to observe the pattern that most animals' food source traces back to plants. 	

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<ul style="list-style-type: none"> Students will determine what happens to ecosystems and other living things when non-native living things are introduced to areas. For example, change in one or more components of an ecosystem can affect the entire ecosystem. 		
Key Vocabulary living things, categorize, attributes, characteristics, food chains, food webs, ecosystems, adaptations, endangered, extinct, organisms	Links to Prior Learning <ul style="list-style-type: none"> Students have learned that parents and their young share some of the same characteristics. Students should have had experiences with ecosystems and how living things rely on each other to survive and thrive. 	Links to Future Learning <ul style="list-style-type: none"> In future science classes, students will continue to examine how living things rely on each other to thrive and survive in their ecosystems. They will go into more depth with the concepts. Students will delve into the concept that parents and their young share attributes, characteristics, features, genes, DNA, etc.
Instructional Strategies (EL, SIOP, SPED, Marzano) When students answer questions, elaborate about their answers to get them to focus and/or think at a higher level. When students write, draw, or use any other method to demonstrate their understanding, it is important to give feedback about their thinking and understanding of the concepts. Make comments to explicitly explain concepts and/or ask more questions for clarification, encourage higher-level thinking, and help students understand any misconceptions they may have obtained (Marzano: Providing Feedback). Students will work together with a partner or in small groups. This is not for one student to do all of the work. The work, ideas, suggestions, and completing of tasks are shared by all of students in the grouping (Ecosystems at School) (Marzano: Cooperative Learning). Below are some suggested questions which, along with the essential questions, students should be able to answer to demonstrate their understanding of concepts. These questions are a way to gauge how and what students are learning about the topic. The possible questions are: How are living things categorized (such as mammals, birds, reptiles, plants, etc.)? Are there other ways to categorize living things? Do parents and their young share attributes and characteristics? What are some attributes and characteristics that are different between parents and young? How does energy transfer from one part of a food chain/food web to another part of the food chain/food web? Is the transfer of energy given		CCSS ELA Support Standards Students will have science journals in which they can record their learning experience and questions they have about the concept. They will use specific language when writing in their journals. Vocabulary words and other words which are encountered during lessons should be listed somewhere in the room so students can use them as a reference when doing science activities and reading and writing about science. A major component of writing during this unit will be to compare and contrast living things, ecosystems, parents and their young, endangerment and extinction, etc. Comparing and contrasting require higher-level thinking skills, but the reward is students' increased comprehension of the concepts.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

or taken? What is an ecosystem? What are the different types of ecosystems? What makes up an ecosystem? What adaptations do animals and plant undertake to survive and thrive? What are some reasons for the endangerment of living things? What changes can be made to ensure that an endangered living thing does not become extinct? What changes can be made to help keep other living things from becoming endangered? What are some reasons for the extinction of organisms? What might happen to other organisms in the ecosystem which rely on the extinct organism? (Marzano: Cues, Questions, and Advanced Organizers)

Sometimes students need to express their ideas and knowledge using pictures rather than words. Often [nonlinguistic representation](#) can be combined with writing to better express their knowledge (Marzano: Nonlinguistic Representations).

Students can compare and/or contrast new information to previously learned information or concepts currently being studied. They can look at different environmental features and how they impact specific animals or plants. Look at this [Squirrel Island](#) lab activity and have students compare and contrast ecosystems for a squirrel (Marzano: Identifying Similarities and Differences).

When students are completing an [existing investigation](#) or creating their own, they will need to think like a scientist, pondering the hypothesis and completing the investigation; thus testing the hypothesis (Marzano: Generate and Test Hypothesis).

General Strategies to Embed Throughout the Year include

- Have word lists for students who may have limited language.
- Review vocabulary for students to gain an understanding of the words prior to using them.
- Partner students who may need some extra assistance with another student who is willing and capable of helping (Marzano: Cooperative Learning).
- Work directly with a small group of students who may need extra assistance.
- Students who have disabilities related to their five senses can explain how they use their other senses to compensate.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Resources & Links to Technology

- Harcourt Science Grade 3: pp. A2–B72
- [Interdependence or Adaptation Interactive Site](#)

Literature Connection:

- The Lorax by Dr. Suess

<p>Big Idea 2, Quarter 1 The student will be able to use the scientific method to conduct an experiment.</p>	<p>Essential Question(s): What are the possible conditions that change matter? What does it mean to say that an object has mass? How is mass different from matter?</p>
<p>Guam Standards:</p> <p><i>3.1.1 Generate a question that can be answered by science and develop a hypothesis based on observations.</i></p> <p><i>3.1.2 Answer questions by safely collecting and analyzing data.</i></p> <p><i>3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one’s own conclusions about findings.</i></p> <p>3.3.1 Use size, capacity, and mass to describe objects.</p> <ul style="list-style-type: none"> • Matter: anything that has mass and takes up space • Mass: a measure of how much matter is in an object <p>3.3.2 Illustrate how objects change during an investigation.</p>	<p>CCSS ELA Standards:</p> <p>3.W.7 Conduct short research projects that build knowledge about a topic.</p>
<p>Elements of the Standard(s) – What’s the meaning? This unit will have students incorporate the scientific method into their learning for better understanding. The scientific method will continue to be used throughout the year.</p> <ul style="list-style-type: none"> • Students will be able to create questions, develop a hypothesis, conduct an experiment, collect and analyze data, and come up with a conclusion supported by the data. • Students will learn that it is okay if their hypothesis is not supported by the data. Oftentimes more is learned from not having a correct hypothesis than being correct all of the time. 	

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<ul style="list-style-type: none"> Students will create investigations to demonstrate their understanding of matter and mass and the changes which can occur. Specifically, they know that matter is anything that takes up space including air. Matter also has a mass which is a measure of the matter. 		
Key Vocabulary scientific method, questions, hypothesis, observations, collection, data, analyzing, conclusion, mass, matter, investigation, physical and chemical changes	Links to Prior Learning <ul style="list-style-type: none"> Students have previously been exposed to the steps used in conducting a science experiment. Students should have an understanding that all objects are made up of small parts, some are the same, and some can be different. 	Links to Future Learning <ul style="list-style-type: none"> The scientific method will continue to be important to students as they progress through their education because it is the standard of science investigations. Students will be exposed to the scientific method in Big Idea 3, Quarter 2, Big Idea 3, Quarter 3, and Big Idea 2, Quarter 4. Students will explore the concepts of matter and mass more in depth in future science experiences. They will delve more deeply into what makes up matter and mass at a microscopic level, including particles and atoms.
Instructional Strategies (EL, SIOP, SPED, Marzano) This is a time to obtain information from students about their thinking and understanding. Cues and questions are meant as a way to gain this knowledge and help direct students (Marzano: Cues, Questions, and Advanced Organizers).		CCSS ELA Support Standards As student continue writing about their learning and understandings in their science journals, they need to be able to write like a scientist by communicating their question, hypothesis, data, and supported conclusion of their analyzed data. They will realize that being a scientist means more than just doing investigations, but includes reading and writing about the subject of their experiment. In this unit, students will focus their reading and writing on matter and mass. They will use their research to generate questions and test hypothesizes about topics, and communicates the results via writing.
Resources & Links to Technology <ul style="list-style-type: none"> Harcourt Science Grade 3: pp. x–xviii and E2–E56 Why Does Matter Matter? (Article) What's the Matter? (States of matter worksheet) 		

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- [Experimental Design](#)
- [Nature of Science Game](#)

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Big Idea 1, Quarter 2 The student will be able to demonstrate their knowledge of how weather and living conditions affect each other.		Essential Question(s): What are some ways people prepare for natural disasters? How can natural and human activities affect weather? How do the features of our island affect our lives?	
Guam Standards: 3.4.2 Identify some ways that human activities affect weather. 3.4.3 Describe ways that human beings protect themselves from adverse weather conditions. <i>EXAMPLE(S):</i> How do people on Guam prepare for a typhoon? 3.4.4 Use pictures and words to describe natural phenomena. 3.4.5 Observe and illustrate the different features of our island. <i>EXAMPLE(S):</i> a model of our island’s topography showing the high and low points		CCSS ELA Standards: 3.RI.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). 3.RI.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).	
Elements of the Standard(s) – What’s the meaning? The lessons in this unit will focus on weather and the landforms of the island of Guam. <ul style="list-style-type: none">Students will understand natural disasters, how weather affects human behavior, natural phenomena, and the effects of landforms on weather and humans. Include specific natural disasters, such as typhoons, that affect Guam and what is done to prepare for them. Instruction should include examples of other natural disasters and how some require people to prepare in different ways.Students will understand the different types of weather, cloud formations, and landforms to understand the consequences of the weather and landforms on humans.Students will have an understanding of the landforms which make up Guam, and how these landforms can influence where people live, how they live, and how it influences the weather. Students should be able to create a model or representation of the topography of the island showing the various land features. They know that one can collect and compare weather data in order to predict the likelihood of a particular weather condition occurring. They know how to read basic weather instruments: thermometer, barometer, anemometer, wind vane, and rain gauge. Students also can identify atmospheric conditions (presence and type of clouds [stratus, cirrus, cumulous], fronts) that are associated with predictable weather patterns. They can make basic weather predictions using these skills.			
Key Vocabulary weather, adverse weather conditions, precipitation, natural phenomena, natural features, landforms, coast, mountains, hill, rivers, plateau, stratus, cirrus, cumulous		Links to Prior Learning Students have been exposed to season and basic weather conditions, such as rain, snow, sleet, and hail.	Links to Future Learning Students will learn more about how weather is created in the water cycle. They will also use their knowledge base to see how weather affects ecosystems around the world and how weather patterns are changing, to make

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		predictions about what might happen in the future if certain conditions, such as global warming and pollution, continue, and how human help can make changes for positive weather.
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <p>They will need to think about any natural disasters which could occur in Guam. What would they do if (natural disaster) occurred? Do they have a plan? If not, what plan might they come up with for them to survive? Are any of the natural disasters related to weather? If so, what are they? Are any of the natural disasters related to landforms? If so, what are they? (Marzano: Cues, Questions, and Advance Organizers)</p> <p>Sometimes students need to express their ideas and knowledge using pictures rather than words. Often nonlinguistic representation can be combined with writing to better express their knowledge. This will occur while creating projects or writing notes in the science journals. Students need to be able to show their learning in ways other than the written word. Pictures often give more information about students’ thinking and understanding. You should consider having students use foldables as a way to show their understanding. (Marzano: Nonlinguistic Representations)</p> <p>When students compare and/or contrast information they are learning with other information they are learning or with previous information they are learning they are finding how they are alike and different. A compare and contrast chart would be one way to help students look at how different natural disaster compare to one another. Students can show how their natural disasters are different from other natural disasters in other parts of the world. (Marzano: Identifying Similarities and Differences)</p>		<p>CCSS ELA Support Standards</p> <p>In students’ science journals, they will record, via writing and drawings, the concepts they are learning. They should answer questions, write questions they come up with, summarize information they gain from reading, lectures, and discussions, and explain what they have learned and defend their understandings.</p> <p>When students are writing about reading, they will need to make comparisons, cause/effect conclusions, and sequencing references. Here are some examples that should be integrated in lessons and journal writing: how things relate to each other; if (something) happens, then (this) occurs; coming up with sequence of events for better understanding of how something works. Students can focus on natural disasters, how they occur, what people can do to help themselves be ready for a natural disaster, and how the weather and landforms play a part in the natural disasters they experience. Students can develop plans to help them survive.</p>
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> • Harcourt Science Grade 3: pp. D26–D52 • Lesson on Natural Disasters that Embeds Writing • Introduction to Clouds (Video) • Sizing Up The Clouds (Teacher’s guide to activity) • How does a Hurricane Form? 		

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- [Hurricanes and Storms](#) (Weather Adventures resources)

<p>Big Idea 2, Quarter 2 The student will be able to analyze the advantages and disadvantages of technology.</p>	<p>Essential Question(s): How does technology affect your life? What would the world be like without technology?</p>
<p>Guam Standards:</p> <p>3.5.1 Describe some ways in which technological developments in fields such as transportation or communication have influenced society. <i>EXAMPLE(s):</i> Discuss how inventions, such as cars, computers, and electric motors, have affected the way we live.</p> <p>3.5.3 Recognize that the decision to use a particular technology depends on the expected benefits, anticipated risks, and cultural values. <i>EXAMPLE(s):</i> Compare and contrast the proa (outrigger canoe) to the fishing boats of today.</p>	<p>CCSS ELA Standards:</p> <p>3.RI.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.</p> <p>3.RI.6 Distinguish their own point of view from that of the author of a text.</p> <p>3.W.1a-d 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) Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</p>
<p>Elements of the Standard(s) – What’s the meaning? This unit focuses on the development of technology and how it influences a community.</p> <ul style="list-style-type: none"> • Students should be able to describe ways that technology has changed our society (some examples might be for the better and some might be for the worse). For example, discuss forms of transportation in terms of getting to a hospital faster or providing more access to jobs, but also discuss the toxins from transportation that pollute the air. Include other areas of transportation and their effects on Guam as well as technological advances in the medical field (machines for surgery, medications) or communication (i.e. cell phones). • Students will learn that with technology there is more responsibility. • Students should discuss the benefits and risks as well as the cultural values associated to specific new technology in order to make an informed decision on whether or not to use the technology. 	

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Key Vocabulary technology, technological developments, transportation, communication, benefits, risks, cultural values	Links to Prior Learning During grade 2, students began their learning of simple machines and moved to complex machines.	Links to Future Learning Students will continue learning about different types of technology and the ongoing changes that are constantly occurring because of these new technologies.
Instructional Strategies (EL, SIOP, SPED, Marzano) This is a time to obtain information from students about their thinking and understanding. Cues and questions are meant as a way to gain this knowledge and help direct students. Students need to also think about the cultural values. Have they changed? Good/Bad or Both? When your grandparents or parents talk about the “good old days,” what do you think they mean? Are they correct? (Marzano: Identifying Similarities and Differences) When students compare and/or contrast the good and bad of technology, they are focusing their thinking on the concept. Students need to be aware that there are two sides to every concept, and that technology is not all good or all bad. It depends on how it is used. If students need support, try using this online tool that guides them through comparing and contrasting topics (Marzano: Identifying Similarities and Differences).		CCSS ELA Support Standards As students work on this unit, they will be faced with issues with good and bad sides to them. They will need to understand the history, so they will read and find information for both the good and bad, develop their own point of view, and be able to defend their point of view with accurate information. They will need to write their opinion using basic writing skills, including introduction of the topic and stating their point of view, providing evidence which supports their opinion, and using transitions to make the information fit and flow together. They must also provide graphics to help their audience comprehend their point of view.
Resources & Links to Technology <ul style="list-style-type: none"> • What 2 Do on the Web • How to be Safe on the Internet • CyberSmart • Technology Uses at Home 		

Big Idea 3, Quarter 2 The student will be able to use the scientific method to conduct an experiment.	Essential Question: What are the different elements of the scientific method? Why is each element important?
Guam Standards: <i>3.1.1 Generate a question that can be answered by science and develop a hypothesis based on observations.</i>	CCSS ELA Standards: 3.W.7 Conduct short research projects that build knowledge about a topic.

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<p>3.1.2 Answer questions by safely collecting and analyzing data.</p> <p>3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one’s own conclusions about findings.</p>	
<p>Elements of the Standard(s) – What’s the meaning?</p> <p>This unit will have students incorporate the scientific method into their learning for better understanding. The scientific method will continue to be used throughout the year.</p> <ul style="list-style-type: none"> Students will be able to create questions, develop a hypothesis, conduct an experiment, collect and analyze data, and come up with a conclusion supported by the data. Students learn that it is okay if their hypothesis is not supported by the data. Often times more is learned from not having a correct hypothesis than being correct all of the time. Students should conduct experiments related to new technologies and gather data to know if it is worth the risks or harms associated to the new technology. 	
<p>Key Vocabulary</p> <p>scientific method, questions, hypothesis, observations, collection, data, analyzing, conclusion, mass, matter, investigation, physical and chemical changes</p>	<p>Links to Prior Learning</p> <p>Students should have been exposed to the steps used in conducting a science experiment in Big Idea 3, Quarter 1.</p> <p>Links to Future Learning</p> <ul style="list-style-type: none"> The scientific method will continue to be important to students as they progress through their education because it is the standard of science investigations they will experience. Students will use this again with Big Idea 3, Quarter 3 and Big Idea 2, Quarter 4.
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <p>When creating investigations and delving into research of concepts, students can work together. If students work together correctly, they are able to share thoughts and ideas, help each other focus, and make certain everyone understands the concepts (Marzano: Cooperative Learning).</p> <p>This is a time to obtain information from students about their thinking and understanding. Cues and questions are meant as a way to gain this knowledge and help direct students. Use this as students are reading about these concepts from their text (Marzano: Cues, Questions, and Advanced Organizers).</p>	<p>CCSS ELA Support Standards</p> <p>As student continue writing about their learning and understandings in their science journals, they need to be able to write like a scientist by communicating their question, hypothesis, data, and supported conclusion of their analyzed data. They will realize that being a scientist means more than just doing investigations and includes reading and writing about the subject of their experiment.</p> <p>In this unit, students will focus their reading and writing</p>

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<p>When students communicate their findings, they will often use pictures, graphs, or charts to explain what they did and display the data (Marzano: Nonlinguistic Representations).</p> <p>When students are completing an existing investigation or creating their own, they will need to think like a scientist, pondering the hypothesis and completing the investigation; thus testing the hypothesis (Marzano: Generate and Test Hypothesis).</p>	<p>on matter and mass. They will use their research to generate questions, test hypotheses about topics, and communicate the results via writing.</p>
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> • Harcourt Science Grade 3: pp. x–xvii • Experimental Design • Nature of Science Game 	

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Big Idea 1, Quarter 3 Students will be able to illustrate the phases of the moon to include the changes that occurs on Earth (seasons).		Essential Question(s): Why do we have different seasons? Why does the moon seem to change shape? What changes happen on Earth when the moon shapes change?	
Guam Standards: 3.4.1 Give examples of how change is a repeated process occurring on Earth. 3.4.6 Observe and describe the Moon phases. <i>EXAMPLE(S):</i> Use models to demonstrate the movement of the Moon around the Earth and the Earth around the Sun.		CCSS ELA Standards: 3.RI.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. 3.RI.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). 3.W.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	
Elements of the Standard(s) – What’s the meaning? This unit will look specifically at Earth to learn about the repeating patterns that occur. <ul style="list-style-type: none">Students will discover relationships and patterns which reoccur with Earth and the moon. For example, they should discuss ideas for why there are 24 hours in a day or discover the pattern of when there is a full moon. Seasons are a little harder to study in Guam, but the repeated rainy season is an example of why it occurs during a specific time of the year.One pattern in particular to observe and model is the moon. Students should be able to describe each phase and model that shape by demonstrating how the moon moves around Earth. They know that the moon rotates and revolves around Earth. The moon’s appearance (phase) is determined by its position relative to Earth and the sun. The appearance of the moon changes in a specific pattern and repeats this sequence over the course of approximately 28 days. During part of this cycle, the moon’s visible portion appears to grow larger (waxes). This is followed by a period during which the moon’s visible portion appears to reduce in size (wanes). Students are familiar with the following phases of the moon: new moon, first quarter, full moon, and last quarter.			
Key Vocabulary patterns of our solar system, rotation, revolution, revolve, new moon, full moon, first quarter, and last quarter		Links to Prior Learning Students have previously learned about objects in the sky, seasons, weather, and water cycles. They have also learned that Earth is the third planet and is part of the solar system.	Links to Future Learning Students will continue to learn how the moon affects Earth. They will go move in depth with other processes and patterns which occur on Earth and in the solar system. They will learn how there are relationships between objects in the solar system and their effects on Earth.

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<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <p>Students will work together with a partner or in small groups. This is not for one student to do all of the work. The work, ideas, suggestions, and completing of tasks are shared by all of students in the grouping. They will develop patterns, relationships, and cause/effect aspects of Earth and the moon. When students work together, they can encourage, question, and push each other (Marzano: Cooperative Learning).</p> <p>This is a time to obtain information from students about their thinking and understanding. Cues and questions are meant as a way to gain this knowledge and help direct students. As students work on their learning of the topic, ask some questions, such as: Do Earth and the moon have a relationship? If they have a relationship, what is it? How do they work together? Are there other objects in our solar system which work together or have a relationship similar to Earth and the moon? (Marzano: Cues, Questions, and Advanced Organizers)</p> <p>Sometimes students need to express their ideas and knowledge using pictures rather than words. Often nonlinguistic representation can be combined with writing to better express their knowledge. Students will use pictures and charts to explain their understanding of the topic. This is a good place to have them recreate the phases of the moon via drawings. One way to support students in making connections between Earth and the phases of the moon is to have them create a flipbook or foldables about the phases of the moon (Marzano: Nonlinguistic Representations).</p> <p>Have students conduct a lab to demonstrate the phases of moon. You can use What Causes Moon Phases? to support students through this process. Further support students by having them practice naming the phases of the moon and matching them with their shape using Arranging the Moon (Marzano: Homework and Practice).</p>	<p>CCSS ELA Support Standards</p> <p>Students will focus their reading and writing in this unit on the patterns, relationships, and cause/effect aspects of Earth and the moon. They will not only read non-fiction texts, but use the graphic illustrations to assist in their understanding of the concepts as well. As they are reading, students will take notes and summarize the key points from their reading. These notes and summaries should be completed in their science journals. This is an excellent opportunity to demonstrate how to take notes and summarize. It is also a good time to have students discover how note taking and summarizing can help them comprehend the concepts they are learning about in science.</p>
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> Harcourt Science Grade 3: pp. D54–D86 The Moon: Tides 	

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Big Idea 2, Quarter 3 Students will build a model of the solar system to demonstrate the motion of the sun and moon.		Essential Question(s): How do the sun and moon appear to travel in the sky? What is the relationship between Earth and the moon, stars, and other planets?	
Guam Standards: 3.4.7 Observe and describe the motion of the Sun and Moon over a time span of 1 day. 3.4.8 Describe the Earth’s relationship to the Moon, stars, and other planets. <i>EXAMPLE(S):</i> Build a model of the solar system.		CCSS ELA Standards: 3.RI.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. 3.W.2 a-d 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 related to the information or explanation presented.	
Elements of the Standard(s) – What’s the meaning? The Big Idea for this unit is to focus on the solar system. <ul style="list-style-type: none">Students will expand their focus of patterns and relationships from Earth and the moon to include other objects in our solar system. Here they should be able to create models of the solar system and describe Earth’s position and relationship to its moon, the stars, and other planets over time.During this unit, students need to make the connection between a 24-hour day and the rotation of Earth. They should also connect the pattern of having 365 days in a year, as well as the repeating of the seasons each year, to the revolution Earth is making around the sun.			
Key Vocabulary processes, patterns, phases, seasons, tide, sunrise, sunset		Links to Prior Learning Students learned about Earth and the moon in Big Idea 1, Quarter 3.	
		Links to Future Learning Students will continue to learn how the moon affects Earth. They will go more in depth with other processes and patterns which occur on Earth and in the solar system. They will learn how there are relationships between objects in the solar system and their effects on Earth.	
Instructional Strategies (EL, SIOP, SPED, Marzano)		CCSS ELA Support Standards	

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After students have learned about the relationships between Earth and the moon, they are able to expand that knowledge to include the solar system. As students work on these relationships, guide their thinking and processing by giving feedback. The feedback should get students to focus, encourage them to go further, and push their thinking beyond the basics (Marzano: Providing Feedback).

Students will work together with a partner or in small groups. This is not for one student to do all of the work. The work, ideas, suggestions, and completing of tasks are shared by all students in the grouping. They will create projects which will demonstrate their understanding of the solar systems and the relationships (Marzano: Cooperative Learning).

This is a time to obtain information from students about their thinking and understanding. Cues and questions are meant as a way to gain this knowledge and help direct students. Here are some possible questions: How are the relationships in the solar system similar to the relationship between Earth and the moon? Are there any differences between the relationships? What would happen to the solar system if there was no sun? Is it important for the solar system to keep all of the planets and moons the way they work now? (Marzano: Cues, Questions, and Advanced Organizers)

Have students create models of the solar system using the links provided in the resources (Marzano: Nonlinguistic Representations).

When students compare and/or contrast new information with other information they are learning or with previous information, they are finding how they are alike and different. The Venn diagram is the most common way used to demonstrate this thinking. Students can compare and contrast the relationships found in the solar system, the planets, the moons, and other objects (Marzano: Identifying Similarities and Differences).

Students will focus their reading and writing in this unit on the patterns, relationships, and cause/effect aspects of Earth and the moon. They will not only read non-fiction texts, but use the graphic illustrations to assist in their understanding of the concepts as well. As they are reading, students will take notes and summarize the key points from their reading. These notes and summaries should be written in their science journals. This is an excellent opportunity review how to take notes and summarize.

Students will complete an expository piece of writing, which will explain what they have learned about the patterns and relationships of Earth, the moon, planets, and other objects in our solar system. They will be required to use the appropriate format to convey their information. They will introduce their topic, give appropriate details about their topic, connect information using transitions, and give a conclusion which sums up all of the information for the audience.

Resources & Links to Technology

Harcourt Science Grade 3: pp. D54–D86

[Solar System Scale Activity](#)

[Solar System Size Scale Mode Demo](#)

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<p>Big Idea 3, Quarter 3 Students will explain the cause and effect of pollution and how recycling helps reduce pollution.</p>	<p>Essential Question(s): How can recycling help reduce waste disposal? What are the environmental benefits of recycling? In one week’s time, what percentage of your trash can be recycled and how can you reduce/reuse the trash?</p>
<p>Guam Standards:</p> <p>3.5.2 Describe how discarded products contribute to the problem of waste disposal and how recycling can help solve this problem.</p> <p>3.1.1 <i>Generate a question that can be answered by science and develop a hypothesis based on observations.</i></p> <p>3.1.2 <i>Answer questions by safely collecting and analyzing data.</i></p> <p>3.1.3 <i>Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one’s own conclusions about findings.</i></p>	<p>CCSS ELA Standards:</p> <p>3.RI.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.</p> <p>3.W.2a-d 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 related to the information or explanation presented.</p>
<p>Elements of the Standard(s) – What’s the meaning? This unit will have students incorporate the scientific method into their learning for better understanding. The scientific method will continue to be used throughout the year.</p> <ul style="list-style-type: none"> Students will be able to create questions, develop a hypothesis, conduct an experiment, collect and analyze data, and come up with a conclusion supported by the data. Students will learn that it is okay if their hypothesis is not supported by the data. Oftentimes more is learned from having an incorrect hypothesis than being correct all of the time. Students will focus on understanding the problem of waste disposal and recycling. Students will explore, through a scientific investigation, an issue of waste disposal, especially on an island, and collect data to determine a possible solution(s) to the problem. 	

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<p>Key Vocabulary scientific method, questions, hypothesis, observations, collection, data, analyzing, conclusion, recycling, waste disposal</p>	<p>Links to Prior Learning Students were exposed to the steps used in conducting a science experiment during Big Idea 3 for Quarters 1 and 2.</p>	<p>Links to Future Learning</p> <ul style="list-style-type: none"> • The scientific method will continue to be important as students progress through their education because it is the standard of science investigations they will experience. • Students will see this again in Big Idea 2, Quarter 4.
<p>Instructional Strategies (EL, SIOP, SPED, Marzano) Students might need to see outside sources to help them think about recycling and its benefits. Consider using information from Clean Air Kids or Environmental Benefits of Recycling (South Carolina Department of Health and Environmental Control) to provide additional information. You might also show this Reduce, Reuse, Recycle video.</p> <p>This is a time to obtain information from students about their thinking and understanding. Cues and questions are meant as a way to gain this knowledge and help direct students. Possible questions: Could there be a relationship between waste disposal and recycling? What will happen in the future if there is no solution to the waste disposal issue on the island? How does the issue of waste disposal affect the ecosystem and weather on the island? (Marzano: Cues, Questions, and Advance Organizers)</p>		<p>CCSS ELA Support Standards Students will continue to use their writing skills when demonstrating their understanding of recycling and water disposal after they have completed some experimentation around these concepts. They will write like a scientist and understand that, just like writing narratives, their writing must have certain aspects. Students need to make certain that they understand the vocabulary to facilitate understanding information they may gain from readings and utilize in their writings.</p>

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

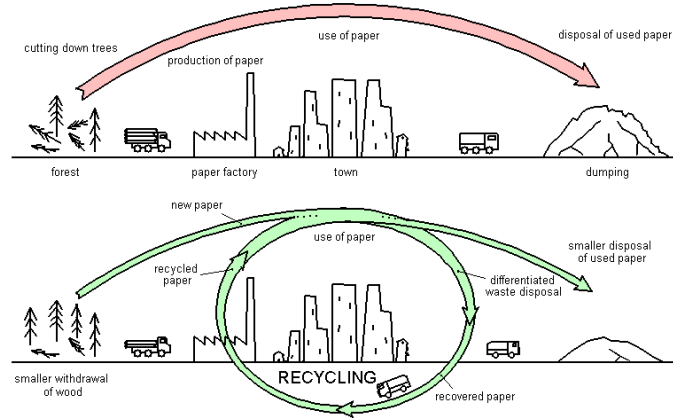


Figure 11- Usually, to fabricate paper it is necessary to cut down trees. After its use, paper is carried into dumpings (upper scheme). Instead of cast it away, an important part of used paper can be recycled. In this way it is necessary to cut down a smaller quantity of trees and the disposal of paper is also reduced (lower scheme). The same is valid for other materials such as glass, plastic, metals, etc.

Resources & Links to Technology

- Harcourt Science Grade 3: pp. x–xviii and E2–E56
- [Nature of Science Game](#)
- [Waste-Free Activities](#)
- [Environmental Benefits of Recycling](#) (all-recycling-facts.com)

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 1, Quarter 4 Students will describe the characteristics of different kinds of energy and how water and air can move objects.		Essential Question(s): How can air and water be used to run machines? How can you demonstrate ways energy can be used to move objects? What sources of energy are there and what are the different forms of energy?	
Guam Standards: 3.3.3 Investigate and describe how moving air and water can be used to run machines, like windmills and waterwheels. 3.3.5 Describe the characteristics of different kinds of energy.		CCSS ELA Standards: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.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. 3.W.2a-d 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 related to the information or explanation presented.	
Elements of the Standard(s) – What’s the meaning? This unit of all about energy, what it is, and its sources. <ul style="list-style-type: none">Students need to understand what energy is, the forms of energy, and the differences between renewable and non-renewable sources of energy.The forms of energy students should begin to distinguish are potential energy and kinetic energy.As sources of energy, students need to look at what items provide energy and how we get these sources as either renewable or non-renewable energy.Finally, students should make connections to renewable energy that is provided by water and air as they work to make specific machines run. You can extend this to include geothermal energy and solar energy as well.			
Key Vocabulary types of energy, characteristics		Links to Prior Learning Students have learned about different technologies and machines which use different types of energy to work.	Links to Future Learning Students will continue to learn about the new technologies that are being developed and the different types of energies being developed to run these technologies.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Instructional Strategies (EL, SIOP, SPED, Marzano) Integrate the use of the Internet by having students look at these Web sites about forms of energy: Forms of Energy, Types of Energy, or Energy Education.</p> <p>Have students create a chart that looks at potential energy versus kinetic energy to understand how they are different and how they are the same. A 2-circle Venn diagram can be used to show this information (Marzano: Identifying Similarities and Differences).</p> <p>Use animations to help students make sense of renewable and non-renewable energy sources (Renewable and Non-Renewable Energy, What is Non-renewable Energy?, or Energy Sources: Nonrenewable) and be sure to connect this back to forms of energy.</p> <p>Make connections about energy as being renewable or non-renewable by having students create posters that show pictures of each type of energy (Marzano: Nonlinguistic Representations).</p> <p>This is a time to obtain information from students about their thinking and understanding. Cues and questions are meant as a way to gain this knowledge and help direct students. Some questions you may want to ask: What machines from the past used air or water as their primary source of energy? What form of energy do these machines use today? Which do you think is better: the energies we use today to make machines work or energies from the past? Why do you think many places are returning to air and water as sources of energy? What other forms of energy do you think we will use in the future? How and why do you think we will be using these forms of energy? (Marzano: Cues, Questions, and Advanced Organizers)</p>	<p>CCSS ELA Support Standards Students will do some reading and research during this unit. When they have completed reading, they should be able to answer questions about their reading, using details from the reading. Students need to understand that they may need to return to the reading to find the information, but that is what good readers do in order to answer the questions and gain understanding from the reading.</p> <p>As students work on this unit, they will be faced with issues with good and bad sides to them. They will need to understand the history, so they will read and find information for both the good and bad, develop their own point of view, and be able to defend their point of view with accurate information.</p> <p>Students will complete an expository piece of writing, which will explain what they have learned about the history of the various forms of energy used to run machines, what forms of energy are used today, and what forms might be used in the future. They will be required to use the appropriate format to convey their information. They will introduce their topic, give appropriate details about their topic, connect information using transitions, and give a conclusion which sums up all of the information for the audience.</p>
<p>Resources & Links to Technology Harcourt Science Grade 3: pp. F2–F32 Renewable Energy Activity Book</p>	

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 2, Quarter 4 Students will be able to distinguish how magnets and static electricity affect the movement of objects.		Essential Question(s): What is a magnet? What is static electricity? How can magnets and static electricity affect the movement of objects? How is magnetic energy different from static energy?	
Guam Standards: 3.3.4 Describe how magnets and static electricity can affect the movement of objects. 3.1.1 <i>Generate a question that can be answered by science and develop a hypothesis based on observations.</i> 3.1.2 <i>Answer questions by safely collecting and analyzing data.</i> 3.1.3 <i>Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one’s own conclusions about findings.</i>		CCSS ELA Standards: 3.RI.9 Compare and contrast the most important points and key details presented in two texts on the same topic. 3.W.7 Conduct short research projects that build knowledge about a topic.	
Elements of the Standard(s) – What’s the meaning? This unit will have the students incorporate the scientific method into their learning for better understanding. In particular, their investigations are furthering their understanding of two specific types of energy: magnetic and electric. <ul style="list-style-type: none">Students will continue their exploration of energy; they will explore how magnets and static electricity are also forms of energy and how they relate to each other and to other forms of energy. In particular, students should understand that a magnet pulls on things made of iron without even touching them, which can result in the item moving. Magnetic energy is true for some metals but not for all. Furthermore, magnetic energy has a force field and poles that determine how a metal is affected and how it will behave. Electrical energy can also cause movement. Objects that are electrically charged pull or push on other charged objects. The electrical charge can result in an attraction, a repulsion, or an electrical discharge (a shock).Students should continue to build meaning of the scientific process to create questions, develop a hypothesis, conduct an experiment, collect and analyze data, and come up with a conclusion supported by the data. In this Big Idea, focus these experiments on magnetic and electrical energy.Students will learn that it is okay if their hypothesis is not supported by the data. Oftentimes more is learned from having an incorrect hypothesis than being correct all of the time.			
Key Vocabulary magnet, static electricity, force, electrical charge, electrical current, gravitational pull		Links to Prior Learning <ul style="list-style-type: none">Students have been exposed to other unseen forces such as gravity and relationships between objects.	Links to Future Learning <ul style="list-style-type: none">Students will review the invisible forces they have encountered and learn new invisible forces which occur in our world and solar system.

Italic Information: Recursive standard – repeated in at least one other quarter

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	<ul style="list-style-type: none">Students were exposed to the steps used in conducting a science experiment during Big Idea 3 for Quarters 1 and 2.	<ul style="list-style-type: none">The scientific method will continue to be important to students as they progress through their education because it is the standard of science investigations they will experience.
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <p>Students will work together with a partner or in small groups. This is not for one student to do all of the work. The work, ideas, suggestions, and completing of tasks are shared by all students in the grouping. They will work together to create a testable hypothesis about the different types of energy and how static electricity and magnets work (Marzano: Cooperative Learning).</p> <p>There are several demonstrations and labs that students should experience with magnets and electrical energy. Gather some initial ideas from Electricity and Magnetism.</p> <p>Have students read informational text and identify key pieces of information. You could use Web pages such as Fun Magnet Facts for Kids, How Do Humans Use A Magnetic Force?, and Magnetism. Have students create a concept map on magnetic energy and one for electrical energy (Marzano: Summarizing and Note Taking).</p> <p>This is a time to obtain information from students about their thinking and understanding. Cues and questions are meant as a way to gain this knowledge, and help direct students. Possible questions: How are static electricity and magnetic energy alike and different? Can they be used to run machines? Would they be more effective than water and wind? Are there any similarities and differences between water/wind energies and static and magnetic energies? (Marzano: Cues, Questions, and Advanced Organizers)</p> <p>Sometimes students need to express their ideas and knowledge using pictures rather than words. Often nonlinguistic representation can be combined with writing to better express their knowledge. Students can use charts to show the different types of energies and how they are used to move objects. They can draw pictures to help express their beliefs about how to use the different energies (Marzano: Nonlinguistic Representations).</p>		<p>CCSS ELA Support Standards</p> <p>Students will use their higher-level thinking skills, which enable them to compare and contrast magnets and static electricity, along with other forms of energy which are used to move objects.</p> <p>Students will need to be able to write like a scientist when sharing the information they learn about magnetic and static energies. They will focus their reading and writing on a topic. They will use what they research to generate and test hypotheses about the topic, and then they will communicate via writing.</p>
<p>Resources & Links to Technology</p>		

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- Harcourt Science Grade 3: pp. x–xvii
- [Static Electricity](#) (Lesson plans and activities)
- [Cool Experiments with Magnets](#)
- [Magnetic Forces](#) (Scroll down to Grade 4: Magnets and Motion.)
- [Energy for Every Kid by Janice VanCleave](#) (This is a rather lengthy book, but it provides great explanations about energy as a reference to gain knowledge in this area.)

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized



Content: Science	Grade/Course: 3	Timeline: 60 minutes for poster and 60 minutes for letter writing
Science Standard(s): 3.2.4 Give examples of some kinds of organisms that have completely disappeared and explain how these organisms were similar to some organisms living today. <i>EXAMPLE(S):</i> Describe how some of our local birds were endangered when the brown tree snake was accidentally introduced onto Guam. CCSS ELA Standards: 3.RI.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. 3.RI.9 Compare and contrast the most important points and key details presented in two texts on the same topic.		
Lesson Overview: In this lesson, students will gather information, develop a plan, and write a plan for saving a native Guam animal that is endangered or becoming extinct.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">Describe endangered and extinct.Develop ways for animals to be saved from being endangered or extinct.
Vocabulary: endangered, extinct		Focus Question(s): Why are many of our local birds endangered or extinct?
Description of Lesson (including instructional strategies): Anticipatory Set: Read books and watch videos that discuss how various animals have become endangered or extinct around the world. Create a description of what needs to occur for an animal to be labeled endangered versus extinct. <i><u>Share pictures of animals that live in Guam that are endangered or becoming extinct. Discuss as a whole group these animals and how they are endangered or becoming extinct.</u></i> (See the Web site in the resources to find endangered animals for Guam or any specific country or region.) <i>As a class, you will need to create a rubric before beginning this project.</i> Instruction and Strategies: Before discussing the project, be sure to review the factors that would cause an animal to be on the endangered list and the factors that are used to support an animal so that it can be removed from the endangered list. Students will work together with a partner (Marzano: Cooperative Learning). They will research an animal native to Guam that fits the endangered category. Partners will create a poster trying to save their animal from extinction (Marzano: Nonlinguistic Representation). They will also write a persuasive letter to the proper authorities explaining about their animal, why it is endangered, and what steps need to be taken to keep their animal from becoming extinct. (As a teacher, you can give them the person to whom they need to write their letter or they can do some research to find the proper authority to whom they should write.) Guided Practice:		

Instructions that are italicized include student engagement strategies.

Instructions that are underlined embed checking for understanding.

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As students are working on their projects, you will walk around and ask questions to keep students focused, or to push student partners who are working quickly and need to be challenged.

Possible questions: Why did you select _____? What is causing _____ to become endangered/extinct? What do you think will happen to the ecosystem should _____ become extinct? (Marzano: Cues and Questions)

Formative Assessment:

- Students will score themselves and others using the rubric.
- Observe students as they work.
- Be certain to give them constructive feedback about their entries in their Science Journals (Marzano: Providing Feedback).

Closure:

If time allows, have students share their poster and letter with the class. If necessary, have students share with only one other group.

Have students write in their Science Journals about what they learned during the lesson.

Independent Practice:

Students will be working on their project both through research and writing as a part of the independent practice.

Accommodations/Modifications:

- Some students may work in a small group with more direct teacher supervision on their project.
- You might need to create a paragraph stem to show the specific types of information that students should write. Example: Dear Senator, We need your support for _____. This animal is in _____ due to _____. It also lacks having _____ to have babies and _____.
- Providing an example of what a poster will look like that receives the highest marks on the rubric as well as an example on one that misses points is extremely helpful.
- Make certain that the pairing of students will allow both students to be successful.

Resources (Textbook and Supplemental):

- Books and videos about animal endangerment and extinction ([Earth's Endangered Creatures Website](#), [World Wildlife Directory of Endangered Animals](#))
- Native animals to Guam pictures
- Harcourt Science textbook Grade 3

Instructions that are italicized include student engagement strategies.

Instructions that are underlined embed checking for understanding.

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Content: Science	Grade/Course: 3	Timeline: 60 minutes
Science Standard(s): 3.4.5 Observe and illustrate the different features of our island. <i>EXAMPLE(S):</i> a model of our island's topography showing the high and low points CCSS ELA Standards: 3.RI.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). 3.RI.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).		
Lesson Overview: This is a beginning lesson on the geography of Guam. Students will become familiar with geographical terms used to describe landforms.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">Describe and name the different geographical features of Guam.
Vocabulary: River, lake, coast, mountain, island, landforms, geography, geographic		Focus Question(s): What are the different geographical features of Guam?
Description of Lesson (including instructional strategies): Anticipatory Set: <i>In a whole group setting, present pictures of various landforms from different places in the island and discuss them.</i> This will allow you to make certain that students know the various geographic features/landforms which that have special names or significance to the Guam people. Instruction and Strategies: Students will have their science journals or mini books to use with the lesson. Use a large map of Guam to show the geographical features of the island. Point to a geographical feature of the island. <u>The students will draw and label the feature in their journal or booklet and write a description of the feature.</u> (Marzano Nonlinguistic Representation and Note Taking) Walk around as the students are doing their work and ask questions to help students focus or push them for more information. Possible questions: <u>"What geographic feature are you drawing? If I could not see your drawing, how does your description help me visualize the feature? Are there more details you could add to your picture or description?"</u> (Marzano – Cues and Questions) As the students finish with each geographical feature, <u>have a couple share out their drawing and descriptions or have them share out their partners' drawing and description.</u> Guided Practice: Continue with the same steps for different features of Guam until all of the features have been covered. Formative Assessment: <ul style="list-style-type: none">Observations of students as they are working and sharing out.Collect their science journals or booklets to check for understanding and misconceptions of the concepts. Make certain to write constructive remarks on their work. (Marzano – Providing Feedback)		

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Closure:

Have students write in their science journals two things that they learned during the activity and one question they could ask to push themselves or others.

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- Have mini booklets made with the pictures already on the pages.
- If there is time, have students color their drawings.
- For students who may need more assistance, have them work with a partner who is willing and capable of helping, or have a small group of students that you work with more closely during the activity.

Resources (Textbook and Supplemental):

- Harcourt Science textbook – Grade 3
- Large map of Guam
- Google Maps
- Internet archive photographs

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Content: Science	Grade/Course: 3	Timeline: 60 minutes
Science Standard(s): 3.4.6 Observe and describe the Moon phases. <i>EXAMPLE(S):</i> Use models to demonstrate the movement of the Moon around the Earth and the Earth around the Sun.		
CCSS ELA Standards: 3.W.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.		
Lesson Overview: This is a cumulative lesson. Students will demonstrate understanding of moon phases through presentation of a model. They should have prior experience with the following types of model: food models, pictorial models, song models, and performance models. The moon goes through its phases every 29.5 days.	Lesson Objective(s): In this lesson, students will be able to: <ul style="list-style-type: none">Orally explain the different phases of the moon by modeling the rotation of the moon around Earth and Earth around the sun.Work in groups cooperatively to develop and present their model of the moon phases.	
Vocabulary: All vocabulary has been introduced in previous lessons.	Focus Question(s): How does the position of the sun, earth, and moon in relation to each other produce the moon phases?	
Description of Lesson (including instructional strategies): Anticipatory Set: (2-3 Minutes) <u>If students do not know already, explain the rules for Ball Toss.</u> <u>(Ball Toss—Give the ball to a student and asks question 1. Student can answer the question and then toss the ball to a student of his/her choice to answer the next question, or he or she can decide not to answer the question and toss it.)</u> (Review questions) <u>1. What is rotation?</u> <u>2. How much of Earth’s surface is in sunlight at one time?</u> <u>3. What is a phase?</u> <u>4. What are the moon’s phases?</u> <u>5. What causes a lunar eclipse?</u> <u>6. What causes a solar eclipse?</u> <u>7. What is the waning phase?</u> <u>8. What is the waxing phase?</u>		

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Instruction and Strategies:

Review the answers from Ball Toss. (1-2 minutes)

Explain that students will be showing understanding of the moon phases through modeling.

List the four kinds of models. (10 minutes)

Review and explain the components of the food model and show [example](#).

Review and explain the components of the pictorial model and show [example](#).

Review and explain the components of the song model and show [example](#).

Review and explains the components of the performance model and show [example](#).

Have students get into cooperative groups.

Have student leaders from each group randomly pick the assigned model.

Guided Practice: (30 Minutes)

Show students the rubric and explain criteria.

Pass out materials for each group.

- Food model (Oreo cookies, plastic spoons, paper plates)
- Pictorial model (chart paper, construction paper, markers and crayons)
- Song model (paper and pencils)
- Performance model (butcher paper, construction paper, markers and crayons, chair and flashlight)

Instruct students that they will need to refer to all written resources and note taking from previous lessons and cite their sources when explaining their model to the class.

Tell students that they will need to explain the relationship between the sun, moon, and earth for all phases.

Students will work on their models for 30 minutes (Marzano: Cooperative Learning).

Formative Assessment:

Walk around and observe student interactions while working on activity, providing feedback as needed based on observation.

(Ball Toss during Anticipatory Set is also an initial Formative Assessment for the lesson.)

Summative Assessment: (12-16 Minutes)

Students will be given 3-4 minutes to present their models and explain the phases of the moon. They will be required to cite their sources from various text and note taking from previous lessons during their presentation.

(See attached rubric) (Marzano: Cooperative Learning)

Closure: (1-2 Minutes)

(Ball Toss—Give the ball to a student and asks question 1. Student can answer the question and then toss the ball to a student of his/her choice to answer the next question, or he or she can decide not to answer the question and toss it. In addition to answering the question, students will need to cite the source of their answer.
(You will need to post an image of moon phases without labels, see attachment.)

(Review questions and phase identification)

1. What is rotation?
2. Identify the waxing crescent moon.

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3. How much of Earth's surface is in sunlight at one time?
4. Identify the full moon.
5. What is a phase?
6. Identify the waning gibbous moon.
7. Identify the third quarter.
8. Identify the first quarter.
9. What causes a lunar eclipse?
10. Identify the first quarter.
11. What causes a solar eclipse?
12. Identify the third quarter.
13. Describe the waning gibbous phase?
14. Identify the waning crescent.
15. Identify the new moon
16. Describe the waxing phase.

Independent Practice:

Students will be given a worksheet to complete independently as a homework assignment. (See attached worksheet) (Marzano: Homework and Practice)

Accommodations/Modifications:

Lower-performing/ELL students will be assigned to groups with higher-performing students. Special attention will be given to these students as you monitor guided practice to check for understanding.

Resources (Textbook and Supplemental):

- Harcourt Science: Unit D, Chapter 3.
- [Performance Example](#)
- [Food Model Example](#)
- [Song Model Example](#)
- [Pictorial Model Example](#)

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Moon Phase Model Rubric

Name: _____

Date: _____

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
Moon Phase Illustrations/ Demonstrations	<ul style="list-style-type: none"> Less than five of the moon phases were correctly illustrated /demonstrated 	<ul style="list-style-type: none"> At least five of the moon phases were correctly illustrated 	<ul style="list-style-type: none"> Six or seven of the moon phases were correctly illustrated 	<ul style="list-style-type: none"> All moon phases were correctly illustrated 	
Accurate Moon Phase Labels	<ul style="list-style-type: none"> Labels are inaccurate 	<ul style="list-style-type: none"> Label have more than two errors 	<ul style="list-style-type: none"> Labels have one or two errors 	<ul style="list-style-type: none"> Accurate labeling 	
Teamwork Cooperation: Listens, shares ideas and work, supports team	<ul style="list-style-type: none"> Did not act as a team player Did not listen to others Did not share ideas or resources Did not help other team members 	<ul style="list-style-type: none"> Was not always a team player Did not always listen to team members or share ideas and resources Did own work but did not help other team members 	<ul style="list-style-type: none"> Was a team player Did own work and helped other team members Listened to team members and shared own ideas and resources 	<ul style="list-style-type: none"> Was a team player Always listened carefully to what others said Shared ideas and resources Finished own work on time and helped other team members 	

Instructions that are italicized include student engagement strategies.

Instructions that are underlined embed checking for understanding.

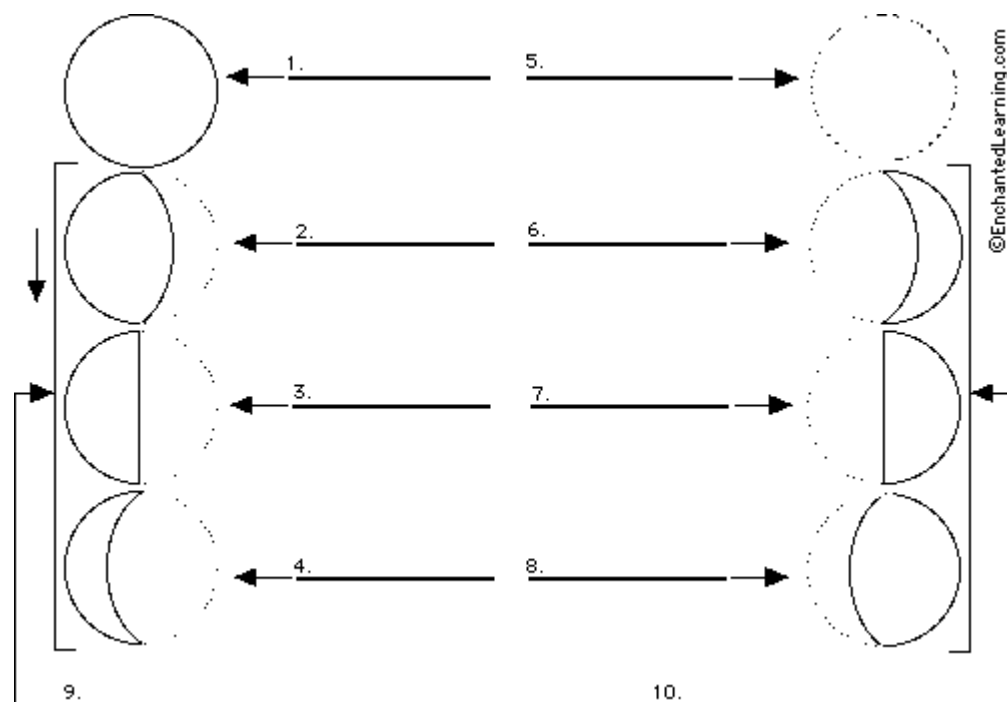
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Name: _____ Date: _____

Directions: Draw and label the phases of the moon.

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Closure image



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Content: Science	Grade/Course: 3	Timeline: 60 minutes
Science Standard(s): 3.3.4 Describe how magnets and static electricity can affect the movement of objects.		
CCSS ELA Standards: 3.W.7 Conduct short research projects that build knowledge about a topic.		
Lesson Overview: This lesson will focus on magnets and static electricity. Students will use hands-on experiments to observe and identify the similarities and differences between magnetic and static electricity. Students should have prior knowledge of magnets and static electricity from previous lessons in this unit.	Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">Accurately list at least one difference and one similarity between magnetic and static electricity using a compare and contrast graphic organizer.	
Vocabulary: All vocabulary should have been taught in previous lessons.	Focus Question(s): How is magnetic electricity the same and different from static electricity?	
Description of Lesson (including instructional strategies): Anticipatory Set: (5 minutes) Before watching the video Static Electricity Experiment , have students orally predict which items will be attracted to a comb the most (salt, sugar, or black pepper). Use a tally chart on the board to record student predictions. Explain to students that they will watch a science experiment video on static electricity. Students will watch video and discuss the results as a class. Instruction and Strategies: (30 minutes) Show lesson objective for the day. Students will state the “I Can” statement: “I can compare and contrast magnetic and static electricity.” (Marzano: Setting Objectives) Ask students “Do you think a magnet can also attract salt, sugar, and black pepper based on your knowledge about magnets?” (Marzano: Cues and Questions) <i>In their teams, students will use a magnet to test if it can attract salt, sugar, and black pepper</i> (Marzano: Cooperative Learning/Generating and Testing Hypothesis). <i>They will record the results on a scientific method worksheet (see Attachment 1 – The Scientific Method).</i> (Marzano: Advanced Organizer) Ask students “Why do you think the magnet could not attract the salt, sugar, and black pepper?” (Marzano: Cues and Questions) <i>In their teams, students will discuss reasons why magnets cannot attract those items (i.e.. magnets can only attract metal)</i> (Marzano: Cooperative Learning). <u>Use random reporting to share responses.</u> Ask students “Do you think a comb with static electricity can attract metal like a magnet?” (Marzano: Cues and Questions) <i>In their teams, students will use charge a comb to test if it can attract paper clips</i> (Marzano: Cooperative Learning, Generating and Testing Hypothesis). <i>They will record the results on a scientific method worksheet (see Attachment 1 – The Scientific Method).</i> (Marzano: Advanced Organizer)		

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Ask students **“Why do you think the comb could not attract the paper clips?”** (Marzano: Cues and Questions)

In their teams, students will discuss reasons why the charged comb cannot attract the paper clips (i.e., the charged comb is different from a magnet and can only attract items that are not metal) (Marzano: Cooperative Learning). Use random reporting to share responses.

Guided Practice: (10 minutes)

Ask students **“What are the similarities and differences between magnetic and static electricity that you observed?”** (Marzano: Cues and Questions)

In their teams, students will discuss the differences and similarities between magnetic and static electricity (Marzano: Cooperative Learning). As a team, they will write the differences/similarities on a T-chart graphic organizer (see Attachment 2) (Marzano: Summarizing and Note Taking, Advanced Organizers, Identifying Similarities and Differences).

Instruct teams to choose one similarity and one difference and write them on post-it notes (Marzano: Cooperative Learning, Identifying Similarities and Differences). By teams, students will place the notes on a labeled class T-chart and explain their team’s answers. Provide feedback regarding team responses (Marzano: Providing Feedback).

Formative Assessment: (10 minutes)

Students will write in their science journals about what they learned from this lesson (Marzano: Summarizing).

Closure: (5 minutes)

Using whole class discussion, review differences/similarities with students.

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- Students who need extra assistance will have a partner who will help with any tasks that are difficult to complete independently.
- Cooperative learning groups (heterogeneous grouping)
- Oral responses
- Extra time for responses and completion of tasks
- Using illustrations to display understanding of content

Resources (Textbook and Supplemental):

- [Static Electricity Experiment](#) (Video)
- Experiment material: magnets, salt, black pepper, sugar, comb, various metals (paper clips, coins, etc.)
- Worksheets: [The Scientific Method](#), [T-Charts](#) (Or see attachments 1 and 2)
- [Basics of Static Electricity](#) (Online lesson)
- Literature Connections
 - *Cool Science: Experiments with Electricity and Magnetism* by Chris Woodford
 - *Magnets: Sticking Together!* by Wendy Sadler

Instructions that are italicized include student engagement strategies.

Instructions that are underlined embed checking for understanding.

Guam Department of Education 2013

Name:

Date:

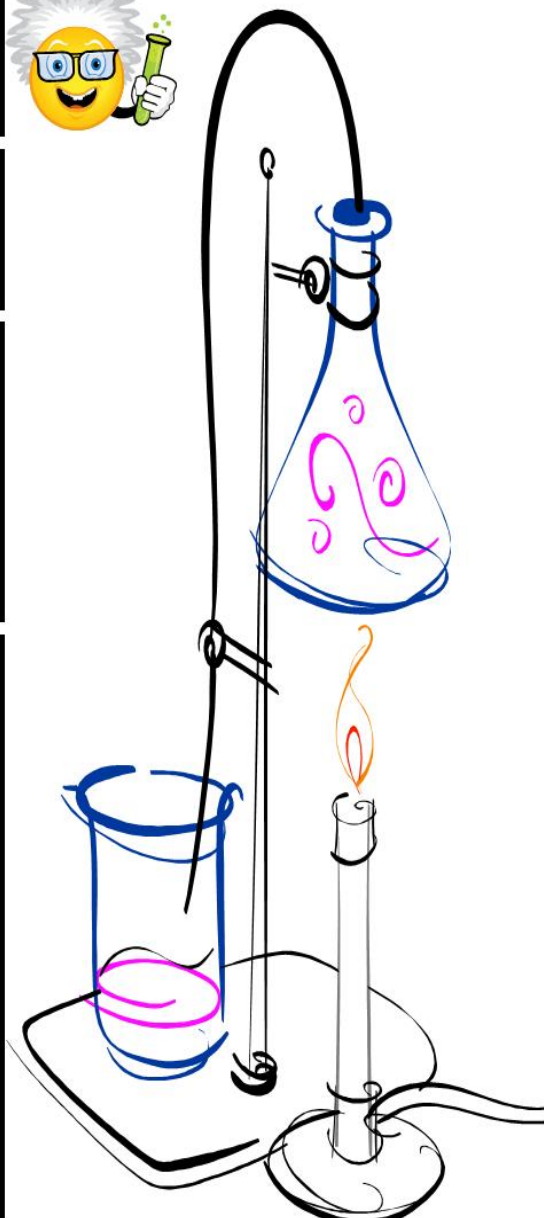
THE SCIENTIFIC METHOD

QUESTION

HYPOTHESIS

MATERIALS

PROCEDURES



OBSERVATIONS

CONCLUSION

T- Chart

Similarities

Differences



GUAM District Level Curriculum Alignment

Grade 3 – HSS

Standard Number	GDOE Content Standard		SAT 10 Objectives
Standard 1: Culture	3.1.1	Describe and explain the significance of traditional food, customs, sports and games, and music of the place they came from with the help of family members or other adults.	-Evaluate ways to preserve the past -Understand how communities change over time
Standard 1: Culture	3.1.2	Explain the origins of traditions or customs from other countries that can be found on Guam and in the U.S. today.	-Evaluate the importance of national holidays -Evaluate ways to preserve the past
Standard 1: Culture	3.1.3	Describe similarities and differences among the cultures in the class and intergenerational groups in communities.	N/A
Standard 1: Culture	3.1.4	Observe and describe local or regional historic artifacts and sites and generate questions about their function, construction, and significance.	-Recognize Native American contributions -Understand how communities change over time -Analyze changes caused by settlers
Standard 2: History	3.2.1	Explain the meaning of time periods or dates in historical narratives and use them correctly in speaking and writing.	N/A
Standard 2: History	3.2.2	Observe visual sources, such as historic paintings, photographs, or illustrations that accompany historical narratives, and describe details, such as clothing, setting, or action.	-Recognize Native American contributions -Understand how communities change over time -Analyze changes caused by settlers
Standard 2: History	3.2.3	Create and interpret time lines.	-Understand how communities change over time -Analyze changes caused by settlers
Standard 2: History	3.2.4	After reading a biography of a famous person in one of the following categories, summarize the person's life and achievements. <ul style="list-style-type: none"> • Science and Technology • The Arts • Business • Education, Journalism, and Health • Political Leadership 	-Analyze the significance of a historical U.S. figure -Identify the accomplishments of famous U.S. figures -Identify the action of a U.S. historical figure

Standard Number	GDOE Content Standard		SAT 10 Objectives
Standard 3: Geography	3.3.1	Read and construct maps, tables, graphs, and charts.	-Recognize symbols on a map -Identify a cardinal direction -Apply a cardinal direction -Analyze a map -Interpret a map
Standard 3: Geography	3.3.2	Develop map skills by positioning and labeling the seven continents and five oceans.	-Recognize symbols on a map -Identify a cardinal direction -Apply a cardinal direction -Analyze a map -Interpret a map
Standard 3: Geography	3.3.3	Use the equator and prime meridian to identify the hemispheres.	-Recognize symbols on a map -Identify a cardinal direction -Apply a cardinal direction -Analyze a map -Interpret a map
Standard 3: Geography	3.3.4	Use cardinal and intermediate directions to locate places on maps and globes.	-Recognize symbols on a map -Identify a cardinal direction -Apply a cardinal direction -Analyze a map -Interpret a map
Standard 3: Geography	3.3.5	Identify and apply the compass rose, grids, and symbols to locate places on maps and globes.	-Recognize symbols on a map -Identify a cardinal direction -Apply a cardinal direction -Analyze a map -Interpret a map
Standard 3: Geography	3.3.6	Draw a map indicating various locations in the school.	-Recognize symbols on a map -Identify a cardinal direction -Apply a cardinal direction -Analyze a map -Interpret a map

Standard Number	GDOE Content Standard		SAT 10 Objectives
Standard 4: Government and Civics	3.4.1	Recognize the importance of government on Guam and in the U.S., including the following: <ul style="list-style-type: none"> • The purpose of rules and laws • The basic purposes of government are to make laws, carry out laws, and decide if laws have been broken • How government protects the rights and properties of individuals 	<ul style="list-style-type: none"> -Draw a conclusion about following rules -Analyze methods of resolving conflict -Evaluate the need for rules and laws -Analyze the need for rules and laws
Standard 4: Government and Civics	3.4.2	Explain the importance of the basic principles that create the foundation of a republican form of government, including the following: <ul style="list-style-type: none"> • Individual rights to life, liberty, and the pursuit of happiness and equality under the law • Contributions of George Washington, Thomas Jefferson, Abraham Lincoln, Rosa Parks, Thurgood Marshall, Martin Luther King, Jr., and Cesar Chavez • Recognizing that Veterans Day and Memorial Day honor people who have served to protect the country's freedoms • How people can serve the community, state, and nation 	<ul style="list-style-type: none"> -Analyze the significance of a historical U.S. figure -Identify the accomplishments of famous U.S. figures -Understand responsibilities of U.S. citizenship
Standard 4: Government and Civics	3.4.3	Identify and describe the three branches of government and their functions.	-Identify the role of government on economy
Standard 4: Government and Civics	3.4.4	Recite the Pledge of Allegiance, sing the Star-Spangled Banner, and explain their history.	<ul style="list-style-type: none"> -Recognize a patriotic symbol -Recognize symbols of patriotic identity
Standard 4: Government and Civics	3.4.5	Identify and discuss patriotic symbols and landmarks.	<ul style="list-style-type: none"> -Recognize a patriotic symbol -Recognize symbols of patriotic identity



<p>Big Idea 1, Quarter 1: Students will create various maps and globes.</p>	<p>Essential Question(s): How do you use the elements of a map? How can the world be divided? Why might a map be preferred over a globe?</p>
<p>Guam Standards:</p> <p>3.3.5 Identify and apply the compass rose, grids, and symbols to locate places on maps and globes.</p> <p>3.3.2 Develop map skills by positioning and labeling the seven continents and five oceans.</p> <p>3.3.3 Use the equator and prime meridian to identify the hemispheres.</p> <p>3.3.4 Use cardinal and intermediate directions to locate places on maps and globes.</p> <p><i>3.3.1 Read and construct maps, tables, graphs, and charts.</i></p>	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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).</p>

Suggested Timeline:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 1: Students will summarize the impact of patriotic symbols, landmarks, and people.</p>	<p>Essential Question(s): How have patriotic symbols, landmarks, and people had an impact on our culture?</p>
<p>Guam Standards:</p> <p>3.4.4 Recite the Pledge of Allegiance, sing the Star-Spangled Banner, and explain their history.</p> <p>3.4.5 Identify and discuss patriotic symbols and landmarks.</p> <p>3.2.4 After reading a biography of a famous person in one of the following categories, summarize the person’s life and achievements.</p> <ul style="list-style-type: none"> • Science and Technology • The Arts • Business • Education, Journalism, and Health • Political Leadership 	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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).</p>

Suggested Timeline:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 3, Quarter 1: Students will compare and contrast different cultures in their communities.</p>	<p>Essential Question(s): How are cultural elements (ethnicity, economics, religion, traditions) represented in this class?</p>
<p>Guam Standards: 3.1.3 Describe similarities and differences among the cultures in the class and intergenerational groups in communities.</p>	<p>CCSS ELA Support Standards: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. 3.RI.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).</p>

Suggested Timeline:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 2: Students will predict how traditions and customs in Guam and the United States will change in the future and how they might affect our society.</p>	<p>Essential Question(s): What are some of the ways people express their culture on Guam and in the United States? What are the similarities and differences in the traditions on Guam and other cultures? What are some ways cultures will change in the future?</p>
<p>Guam Standards: 3.1.2 Explain the origins of traditions or customs from other countries that can be found on Guam and in the U.S. today. 3.2.3 <i>Create and interpret time lines.</i></p>	<p>CCSS ELA Support Standards: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. 3.RI.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. 3.RI.6 Distinguish their own point of view from that of the author of a text.</p>

Suggested Timeline:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 2: Students will create a map and apply the concepts of title, compass rose, legend, scale, and grid system to show different locations in the school and the community.</p>	<p>Essential Question(s): How can you use a map to find a location?</p>
<p>Guam Standards:</p> <p>3.3.1 <i>Read and construct maps, tables, graphs, and charts.</i></p> <p>3.3.6 Draw a map indicating various locations in the school.</p> <p>3.3.7 Draw maps of places and regions that contain map elements.</p>	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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.</p> <p>3.RI.6 Distinguish their own point of view from that of the author of a text.</p>

Suggested Timeline:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 3, Quarter 2: Students will analyze the differences between the three branches of government in the United States and the Guam forms of government.</p>	<p>Essential Question(s): What effect, if any, does the U.S. Constitution have on Guam? How might U.S. laws contradict local historical customs or traditions? What are the U.S. laws that may best apply here on Guam?</p>
<p>Guam Standards:</p> <p>3.4.1 Recognize the importance of government on Guam and in the U.S., including the following:</p> <ul style="list-style-type: none"> • The purpose of rules and laws • The basic purposes of government are to make laws, carry out laws, and decide if laws have been broken • How government protects the rights and property of individuals <p>3.4.3 Identify and describe the three branches of government and their functions.</p>	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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.</p> <p>3.RI.6 Distinguish their own point of view from that of the author of a text.</p>

Suggested Timeline:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 3: Students will Investigate and explain how principles such as individual rights to life, liberty, the pursuit of happiness, and equality under the law became important foundation to the creation of our government.</p>	<p>Essential Question(s): What is the importance of a government? Why or why not should there be a government?</p>
<p>Guam Standards:</p> <p>3.1.1 Describe and explain the significance of traditional food, customs, sports and games, and music of the place they came from with the help of family members or other adults.</p> <p>3.2.1 Explain the meaning of time periods or dates in historical narratives and use them correctly in speaking and writing.</p> <p>3.2.3 <i>Create and interpret time lines.</i></p> <p>3.3.1 <i>Read and construct maps, tables, graphs, and charts.</i></p> <p>3.4.2 Explain the importance of the basic principles that create the foundation of a republican form of government, including the following:</p> <ul style="list-style-type: none"> • Individual rights to life, liberty, and the pursuit of happiness and equality under the law • Contributions of George Washington, Thomas Jefferson, Abraham Lincoln, Rosa Parks, Thurgood Marshall, Martin Luther King, Jr., and Cesar Chavez • Recognizing that Veterans Day and Memorial Day honor people who have served to protect the country's freedoms • How people can serve the community, state, and nation 	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.6 Distinguish their own point of view from that of the author of a text.</p> <p>3.RI.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).</p>

Suggested Timeline:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 4: Students will analyze local historic artifacts, such as historic paintings, photographs, clothing, historic artifacts, and architecture to synthesize and apply concepts on how these items help define our current communities and culture.</p>	<p>Essential Question(s): What are some key relationships between important 1900-era artifacts and their modern day equivalency?</p>
<p>Guam Standards:</p> <p>3.1.4 Observe and describe local or regional historic artifacts and sites and generate questions about their function, construction, and significance.</p> <p>3.2.2 Observe visual sources, such as historic paintings, photographs, or illustrations that accompany historical narratives, and describe details, such as clothing, setting, or action.</p> <p>3.2.3 <i>Create and interpret time lines.</i></p> <p>3.3.1 <i>Read and construct maps, tables, graphs, and charts.</i></p>	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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.</p> <p>3.W.3a-e 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 description of actions, thoughts, and feelings to develop experiences and events or show the responses of characters to situations ; c) Use temporal words and phrases to signal event order; d) Provide a sense of closure.</p> <p>3.W.7 Conduct short research projects that build knowledge about a topic.</p>

Suggested Timeline:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 2, Quarter 4: Students will explain how local government services are financed.</p>	<p>Essential Question(s): What are the needs of taxes and what are some examples? Are taxes (property, sales, income) a good idea? Why or why not? Why does every community need to have a government? What are the basic principles of our government? What might happen if the government in your community stopped working?</p>
<p>Guam Standards: 3.5.1 Define what taxes are, explain their purposes, and, with the help of teachers and parents, give examples of different kinds of taxes.</p>	<p>CCSS ELA Support Standards: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. 3.RI.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. 3.W.3a-e 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 description of actions, thoughts, and feelings to develop experiences and events or show the responses of characters to situations ; c) Use temporal words and phrases to signal event order; d) Provide a sense of closure. 3.W.7 Conduct short research projects that build knowledge about a topic.</p>

Suggested Timeline:

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized



GUAM District Level Curriculum Guide

Grade 3 – HSS Quarter 1

Big Idea 1, Quarter 1 Students will create various maps and globes.		Essential Question(s): How do you use the elements of a map? How can the world be divided? Why might a map be preferred over a globe?	
Guam Standards: 3.3.5 Identify and apply the compass rose, grids, and symbols to locate places on maps and globes. 3.3.2 Develop map skills by positioning and labeling the seven continents and five oceans. 3.3.3 Use the equator and prime meridian to identify the hemispheres. 3.3.4 Use cardinal and intermediate directions to locate places on maps and globes. <i>3.3.1 Read and construct maps, tables, graphs, and charts.</i>		CCSS ELA Support Standards: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. 3.RI.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).	
Elements of the Standard(s) – What’s the meaning? Students will locate various places on maps and globes. In order to accomplish this, they will identify, define, and use various map elements (e.g., equator, prime meridian, hemisphere, cardinal and intermediate directions). Students will be able to identify the differences between a map and globe and determine which situation to use each.			
Key Vocabulary hemisphere, cardinal directions, intermediate directions, continent, ocean, compass rose, grid, prime meridian, equator	Links to Prior Learning <ul style="list-style-type: none">Students were able to locate Guam; its surrounding islands, oceans, continents; and the United States on a world map and globe (2.3.1, 2.3.2, 2.3.4, 2.3.5).Students identified and located cardinal directions, the North Pole, the South Pole, and the	Links to Future Learning <ul style="list-style-type: none">Students will be able to describe the physical, economic, and cultural geography of Guam (4.3.5.).They will be able to describe and compare the climate of Guam with other regions (4.3.4).They will use academic vocabulary commonly used to describe national regions (4.3.3).	

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

	equator. They were able to define and give examples of continents, land forms, and oceans and construct a simple map of a familiar area using basic symbols in a map legend (1.3.1, 1.3.2, 1.3.3).	
Instructional Strategies (EL, SIOP, SPED, Marzano) <ul style="list-style-type: none"> Display various maps with anchor charts providing definitions of key map elements. For example: the vocabulary terms that are defined on the anchor chart can have a piece of yarn connecting the term to the element on the map. Students in pairs or small groups draw cards of map-related vocabulary terms to locate and define them on a map. To increase motivation, you can put a timer to see which team (pair or small group) can answer accurately the fastest. 		CCSS ELA Support Standards Students will use informational text (e.g., atlas, geography books, social studies books, and glossaries) to create and use maps (3.RI.1, 3.RI.2, 3.RI.7).
Resources & Links to Technology <ul style="list-style-type: none"> Harcourt Third Grade Horizons, Atlas, pp. A1 – A14. http://www.guam.gov/ (Maps and information regarding Guam) Interactive social studies games http://www.guam-online.com (Additional maps and information regarding Guam) 		

Big Idea 2, Quarter 1 Students will summarize the impact of patriotic symbols, landmarks, and people.	Essential Question(s): How have patriotic symbols, landmarks, and people had an impact on our culture?
Guam Standards: 3.4.4 Recite the Pledge of Allegiance, sing the Star-Spangled Banner, and explain their history. 3.4.5 Identify and discuss patriotic symbols and landmarks.	CCSS ELA Support Standards: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>3.2.4 After reading a biography of a famous person in one of the following categories, summarize the person’s life and achievements.</p> <ul style="list-style-type: none"> • Science and Technology • The Arts • Business • Education, Journalism, and Health • Political Leadership 	<p>3.RI.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).</p>		
<p>Elements of the Standard(s) – What’s the meaning? Students will be able to identify and explain patriotic symbols and landmarks as well as participate in reciting the Pledge of Allegiance and singing the Star-Spangled Banner (3.4.5., 3.4.4.). They will read various biographies and be able to orally summarize and discuss the achievements and contributions made by a famous person (3.2.4). Discussions will include how patriotic symbols, landmarks, and people have had an impact on the culture of Guam.</p>			
<p>Key Vocabulary allegiance, symbol, landmark, achievement, biography, contribution, impact</p>	<table border="1"> <tr> <td> <p>Links to Prior Learning</p> <ul style="list-style-type: none"> • Students became familiar with the Pledge of Allegiance and the flags of Guam and the United States (K.4.3., K.4.4.). • Students have learned that the people of the United States and Guam have diversity in ethnic origins, customs, and traditions but are united as Americans by common principles (2.4.3). • Students have heard or read stories about Americans whose contributions improved the lives of other Americans (e.g., George Washington, Helen Keller, Jackie Robinson) (1.4.2, 2.4.2). </td><td> <p>Links to Future Learning</p> <ul style="list-style-type: none"> • Students will identify and describe the significance of national and local historical sites (4.2.2). • Students will discuss the differences between historical fact and opinion (4.2.1). • Students will identify the importance of significant explorers (4.2.6). </td></tr> </table>	<p>Links to Prior Learning</p> <ul style="list-style-type: none"> • Students became familiar with the Pledge of Allegiance and the flags of Guam and the United States (K.4.3., K.4.4.). • Students have learned that the people of the United States and Guam have diversity in ethnic origins, customs, and traditions but are united as Americans by common principles (2.4.3). • Students have heard or read stories about Americans whose contributions improved the lives of other Americans (e.g., George Washington, Helen Keller, Jackie Robinson) (1.4.2, 2.4.2). 	<p>Links to Future Learning</p> <ul style="list-style-type: none"> • Students will identify and describe the significance of national and local historical sites (4.2.2). • Students will discuss the differences between historical fact and opinion (4.2.1). • Students will identify the importance of significant explorers (4.2.6).
<p>Links to Prior Learning</p> <ul style="list-style-type: none"> • Students became familiar with the Pledge of Allegiance and the flags of Guam and the United States (K.4.3., K.4.4.). • Students have learned that the people of the United States and Guam have diversity in ethnic origins, customs, and traditions but are united as Americans by common principles (2.4.3). • Students have heard or read stories about Americans whose contributions improved the lives of other Americans (e.g., George Washington, Helen Keller, Jackie Robinson) (1.4.2, 2.4.2). 	<p>Links to Future Learning</p> <ul style="list-style-type: none"> • Students will identify and describe the significance of national and local historical sites (4.2.2). • Students will discuss the differences between historical fact and opinion (4.2.1). • Students will identify the importance of significant explorers (4.2.6). 		

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none"> • A table or chart can be displayed at the beginning of the year. As biographies are read, students participate in completing it. This chart or table can be used as a review for students to compare the culture, the challenge, and the contribution of the person they are reading about (3.2.4). • Students keep a Social Studies or History journal in which they take notes on different historical or biographical figures (3.2.4). • Students may be assigned in pairs or small groups to read a specific biography. Then rearrange the student grouping so they can summarize and share about the person’s life and their achievement (3.2.4). • Students, in pairs or small groups, will create a tourist brochure regarding a patriotic or historical landmark. Their brochure will include a drawing/picture, a map, and the significance of the landmark. Different landmarks may be assigned to different groups and displayed around the room. Students will orally present the information from their brochure to the rest of the class. 	<p>CCSS ELA Support Standards</p> <p>Students will read informational text about patriot symbols, landmarks, and people. They will interpret maps, photographs, and diagrams to gain additional information (3.RI.1, 3.RI.2, 3.RI.7).</p>
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> • Interactive social studies games • www.eduplace.com/kids/hmss (grade-level appropriate biographies) • Historical figures videos • http://www.corestandards.org/ELA-Literacy (Select Appendix B for grade-level reading suggestions for complexity) • Harcourt Third Grade Horizons, short biographies listed throughout the book (see index p. R20) • Houghton Mifflin Third Grade Reading, Theme 4, Focus on Biographies, pp.120–147 	

<p>Big Idea 3, Quarter 1</p> <p>Students will compare and contrast different cultures in their communities.</p>	<p>Essential Question(s):</p> <p>How are cultural elements (ethnicity, economics, religion, traditions) represented in this class?</p>
<p>Guam Standards:</p> <p>3.1.3 Describe similarities and differences among the cultures in the class and intergenerational groups in communities.</p>	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p>

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

	3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.
	3.RI.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).
Elements of the Standard(s) – What’s the meaning? Students will examine and compare the different cultures within their community and classroom (3.1.3). Instructional focus will be on the benefits of having different cultures within a community.	
Key Vocabulary culture, custom, traditions, community	Links to Prior Learning Students compared and contrasted cultures and customs from around the world. They discussed the effect and importance that traditions and customs had on the lifestyle of Guam and the United States (2.1.1, 2.1.2).
	Links to Future Learning <ul style="list-style-type: none">Students will compare Chamorro traditions and customs with other ethnics groups found on Guam (4.1.1).Students will discuss the benefits of cultural diversity (4.1.3).
Instructional Strategies (EL, SIOP, SPED, Marzano) <ul style="list-style-type: none">Display a table or chart as visual support to create categories for organizing information about each culture. Students will complete with adult guidance. This will be helpful in comparing—focus on comparing how cultures are alike (3.1.3).Students complete individual journals recording the same information as the above suggested chart, as reference for later (e.g., writing assignments, research, discussion) (3.1.3.).Students in pairs or small groups prepare a cultural celebration to demonstrate or model the food, the ceremony, the dress, and the historical origin. Each group can model a different culture (3.1.3).Students in pairs or small groups demonstrate how different cultures celebrate the <u>same</u> holiday. This would include ceremonies, food, dress, and traditions. Photos of each demonstration would be displayed on an anchor chart listing the elements in text. (3.1.3)	CCSS ELA Support Standards Students will read informational text about customs and traditions. They will interpret maps, photographs, and diagrams to gain additional information and use when discussing topics with other students (3.RI.1, 3.RI.2, 3.RI.7).
Resources & Links to Technology	

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

- [Interactive social studies games](#)
- <http://guampedia.com/> (Historical and traditional information regarding Guam)
- <http://www.guam-online.com/> (Maps and information regarding Guam)
- <http://www.guam.gov/> (Additional maps and information regarding Guam)
- Harcourt Third Grade Horizons, Holidays Customs and Traditions, pp. 268–271
- Houghton Mifflin Third Grade Reading, Theme 2, Celebrating Traditions, pp. 152–278

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Big Idea 1, Quarter 2 Students will predict how traditions and customs in Guam and the United States will change in the future and how they might affect our society.		Essential Question(s): What are some of the ways people express their culture on Guam and in the United States? What are the similarities and differences in the traditions on Guam and other cultures? What are some ways cultures will change in the future?
Guam Standards: 3.1.2 Explain the origins of traditions or customs from other countries that can be found on Guam and in the U.S. today. 3.2.3 <i>Create and interpret time lines.</i>		CCSS ELA Support Standards: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. 3.RI.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. 3.RI.6 Distinguish their own point of view from that of the author of a text.
Elements of the Standard(s) – What’s the meaning? This is a continuation of the prior Big Idea; students are examining similarities and differences of customs and cultures and their impact. Students may use clues from a timeline that they create to help formulate predictions of how traditions or customs may change in the future (3.2.3).		
Key Vocabulary timeline, customs origin, culture, compare and contrast, cause and effect, chronological	Links to Prior Learning Students compared and contrasted cultures and customs from around the world. They discussed the effect and importance that traditions and customs had on the lifestyle of Guam and the United States (2.1.1, 2.1.2).	Links to Future Learning <ul style="list-style-type: none"> Students will compare Chamorro traditions and customs with other ethnics groups found on Guam (4.1.1). Students will discuss the benefits of cultural diversity (4.1.3). Students will create a timeline in which they place major historical events of Guam in chronological order (4.2.3).
Instructional Strategies (EL, SIOP, SPED, Marzano) <ul style="list-style-type: none"> Students in pairs or small groups will select the question they will be answering (e.g., main topic and supporting facts, cause and effect, compare and contrast, sequence) from assignment cards. Their question will determine the type of graphic organizer they will complete (3.1.2). Completed graphic organizers can be 		CCSS ELA Support Standards <ul style="list-style-type: none"> Students will read informational text about customs and traditions. They will create and explain graphic organizers in which they collected information about main topic and supporting facts (3.RI.1, 3.RI.2).

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<p>displayed as a resource throughout the year.</p> <ul style="list-style-type: none"> Students in pairs or small groups can orally present their informational findings to the rest of the class. The listeners will take notes in their social studies journal for a resource to be used later (e.g., writing activities, assessments, background knowledge). Academic vocabulary can be displayed with non-linguistic representations as a visual resource. Students in pairs or small groups share their predictions regarding the future of customs and traditions and refer directly to phrases or passages in text to support their prediction. Students will use non-linguistic representations (simple drawings) of traditions/customs to place on a timeline in chronological order. This will assist students in pairs or small group discussions to arrive at predictions for the future by of how traditions and customs have changed in the past. 	<ul style="list-style-type: none"> Students will be able to explain or clarify their own point of view from the authors (3.RI.6). Students will be able to describe and explain the connections between a series of historical events or concepts on a timeline. They will use academic vocabulary that pertains to time, sequence, and cause and effect (3.RI.3).
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> Interactive social studies games http://guampedia.com/ (Historical and traditional information regarding Guam) http://www.guam-online.com/ (Maps and information regarding Guam) http://www.guam.gov/ (Additional maps and information regarding Guam) Harcourt Third Grade Horizons, Holidays Customs and Traditions, pp. 268–271 Houghton Mifflin Third Grade Reading, Theme 2, Celebrating Traditions, pp. 152–278 	

<p>Big Idea 2, Quarter 2 Students will create a map and apply the concepts of title, compass rose, legend, scale, and grid system to show different locations in the school and the community.</p>	<p>Essential Question(s): How can you use a map to find a location?</p>
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<p>Guam Standards:</p> <p>3.3.1 <i>Read and construct maps, tables, graphs, and charts.</i></p> <p>3.3.6 Draw a map indicating various locations in the school.</p> <p>3.3.7 Draw maps of places and regions that contain map elements.</p>	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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.</p> <p>3.RI.6 Distinguish their own point of view from that of the author of a text.</p>
<p>Elements of the Standard(s) – What’s the meaning?</p> <p>Students will construct and interpret maps, demonstrating knowledge of different map elements (e.g., map title, compass rose, legend, scale) (3.3.1, 3.3.5, 3.3.7). These skills will be a review from the first quarter.</p>	
<p>Key Vocabulary</p> <p>map title, compass rose, legend, scale, grid system</p>	<p>Links to Prior Learning</p> <ul style="list-style-type: none"> Students located Guam; its surrounding islands, oceans, continents, selected countries; and the United States on a world map (2.3.1, 2.3.5.). Students read globes and maps and followed narrative accounts using them (2.3.2). <p>Links to Future Learning</p> <p>Students will be able to create and explain maps, diagrams, charts, graphs, and spreadsheets. They will also be able to describe the physical economic and cultural geography of Guam (4.3.1., 4.3.5).</p>
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none"> Use the fire evacuation map of the school and remove the identifying text (e.g., classroom labels, arrows for exiting the building, etc.). Have students in pairs or small groups re-label the map. They may need to walk around the campus to identify the locations. Use maps available through the community fire department to copy without the labels for students to re-label. This can be a homework project assigned to students in pairs or small groups. 	<p>CCSS ELA Support Standards</p> <ul style="list-style-type: none"> Students will read informational text about maps and regions. They will create and explain graphic organizers in which they collect information about main topic and supporting facts (3.RI.1, 3.RI.2). Students will be able to explain or clarify their own point of view from the authors (3.RI.6). Students will be able to describe and explain the

Italic Information: Recursive standard – repeated in at least one other quarter

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<ul style="list-style-type: none"> Display the expectations for the map project as a visual reminder to students. This will foster students’ independence in completing the activity. Have the students write the expectations in their social studies notebook or journal. 	<p>connections between a series of steps in a procedure, such as following directions on a map. They will use academic vocabulary that pertains to location, area and map reading (3.RI.3).</p>
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> http://www.guam.gov/ (Maps and information regarding Guam) Interactive social studies games Harcourt Third Grade Horizons, U.1, L.1, Where on Earth is Your Community, pp. 40–43 (Reading maps) Houghton Mifflin Third Grade Reading, Theme 1, How to Read a Map, pp. 46–49 Houghton Mifflin Third Grade English, Research and Study Strategies, Using Visuals, pp. H24 and H25 	

<p>Big Idea 3, Quarter 2</p> <p>Students will analyze the differences between the three branches of government in the United States and the Guam forms of government.</p>	<p>Essential Question(s):</p> <p>What effect, if any, does the U.S. Constitution have on Guam? How might U.S. laws contradict local historical customs or traditions? What are the U.S. laws that may best apply here on Guam?</p>
<p>Guam Standards:</p> <p>3.4.1 Recognize the importance of government on Guam and in the U.S., including the following:</p> <ul style="list-style-type: none"> The purpose of rules and laws The basic purposes of government are to make laws, carry out laws, and decide if laws have been broken How government protects the rights and property of individuals <p>3.4.3 Identify and describe the three branches of government and their functions.</p>	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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.</p> <p>3.RI.6 Distinguish their own point of view from that of the author of a text.</p>
<p>Elements of the Standard(s) – What’s the meaning?</p> <p>Students will be able to identify and describe the three branches of government and their functions in Guam and the United States (3.4.1, 3.4.3). Their discussions will include using appropriate academic vocabulary and topics such as: Does the constitutions of the United States have any effect on Guam?</p>	

Italic Information: Recursive standard – repeated in at least one other quarter

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How might U.S. laws contradict local historical customs or traditions? What U.S. laws apply the best on Guam?		
Key Vocabulary Constitution, law, rights, property, judicial, executive, legislative branch, mayor, judge, consequence, government	Links to Prior Learning Students defined, with examples, the responsibilities of being a good citizen. They understand that Guam and the United States have state and local government officials who are elected by voters. They learned that, although there is great diversity among the people, they are all united as Americans by common principles (2.4.1, 2.4.3).	Links to Future Learning Students will explain how individuals participate in civic affairs and political parties on Guam. They will also provide opinion writing about Guam's government and civics (4.4.1, 4.4.3).
Instructional Strategies (EL, SIOP, SPED, Marzano) <ul style="list-style-type: none"> • Invite a lawyer or paralegal from the community to present to the classroom. Provide the presenter with the questions that you will want the students to discuss so they will come prepared with information on the topic. Students can take notes from the presentation. In pairs or small groups, they will discuss the posted questions (3.4.1, 3.4.3). • Students work in pairs or small groups to complete an organizational chart/chain of command chart for state and local government offices. As they present their finished product, they will be able to describe the basic responsibilities of each office. This information can be collected in the social studies notebook or journal. Students will edit and revise as they collaborate (3.4.1, 3.4.3). Your local town hall will have a chart to use as your master. 		CCSS ELA Support Standards <ul style="list-style-type: none"> • Students will read informational text about government. They will create and explain graphic organizers in which they collected information about main topic and supporting facts (3.RI.1, 3.RI.2). They will be able to explain or clarify their own point of view from the author (3.RI.6). • Students will be able to describe and explain the connections between a series of steps in a procedure, such as following an organizational chart of government responsibility. They will use academic vocabulary that pertains to government (3.RI.3).
Resources & Links to Technology <ul style="list-style-type: none"> • Interactive social studies games • http://guampedia.com/ • How to Make a Chain of Command Chart • Harcourt Third Grade Horizons, U.1, L.4, People Getting Along, pp. 27–33 • Harcourt Third Grade Horizons, U.2, L.4, Branches and Levels of Government, pp. 90–121 • Houghton Mifflin Third Grade Reading, Theme 2, How to take notes, p. 182 		

Italic Information: Recursive standard – repeated in at least one other quarter

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<p>Big Idea 1, Quarter 3 Students will Investigate and explain how principles such as individual rights to life, liberty, the pursuit of happiness, and equality under the law became important foundation to the creation of our government.</p>	<p>Essential Question(s): What is the importance of a government? Why or why not should there be a government?</p>
<p>Guam Standards:</p> <p>3.1.1 Describe and explain the significance of traditional food, customs, sports and games, and music of the place they came from with the help of family members or other adults.</p> <p>3.2.1 Explain the meaning of time periods or dates in historical narratives and use them correctly in speaking and writing.</p> <p>3.2.3 <i>Create and interpret time lines.</i></p> <p>3.3.1 <i>Read and construct maps, tables, graphs, and charts.</i></p> <p>3.4.2 Explain the importance of the basic principles that create the foundation of a republican form of government, including the following:</p> <ul style="list-style-type: none"> • Individual rights to life, liberty, and the pursuit of happiness and equality under the law • Contributions of George Washington, Thomas Jefferson, Abraham Lincoln, Rosa Parks, Thurgood Marshall, Martin Luther King, Jr., and Cesar Chavez • Recognizing that Veterans Day and Memorial Day honor people who have served to protect the country's freedoms • How people can serve the community, state, and nation 	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.6 Distinguish their own point of view from that of the author of a text.</p> <p>3.RI.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).</p>
<p>Elements of the Standard(s) – What's the meaning? In this quarter, students will be able to describe the principles that created the foundation of a republican form of government (3.4.2). They will read biographies of notable people and explain the importance of their contributions towards an individual's right to "life, liberty and the pursuit of happiness" (3.4.2). Students will analyze the value of a government and how people can serve their community, state, and nation (3.4.2). Students will recognize the specific holidays (e.g., Veterans' Day, Memorial Day) that honor those who have served to protect the country's freedoms (3.4.2). They will be able to explain the time periods when presenting orally or in writing (3.2.1). They will continue to create and interpret timelines, maps, tables,</p>	

Italic Information: Recursive standard – repeated in at least one other quarter

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<p>graphs, and charts (3.2.3, 3.3.1).</p> <p>This quarter also includes students looking to a family member or other adults to describe the place they came from and explain the significance of traditional food, customs, sports, games, and music (3.1.1).</p>		
<p>Key Vocabulary</p> <p>liberty, happiness, timeline, serve, government</p>	<p>Links to Prior Learning</p> <p>Students have identified key historical Americans that have made an impact on others (e.g., George Washington, Abraham Lincoln, Susan B. Anthony, Helen Keller, Jackie Robinson, and Martin Luther King, Jr.) (2.4.2).</p>	<p>Links to Future Learning</p> <p>Students will be able to discuss and place contributing events and people in the development of Guam on a timeline (4.2.3).</p>
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none"> • Display examples and rubrics of expectations as a visual support to foster students working independently. • Students in pairs or small groups will read a biography and complete graphic organizers to collect information (e.g., timeline, main idea and supporting details) to answer the question of how this individual contributed to the basic principles of “an individual’s right to life, liberty and the pursuit of happiness and equality under the law.” • Students in pairs or small groups will interview and take notes from family members or adults from the community to describe the place they came from and explain the significance of traditional food, customs, sports, games, and music (3.1.1). Students will present the information with visual support (e.g., maps, photographs, diagrams). 		<p>CCSS ELA Support Standards</p> <ul style="list-style-type: none"> • Students will read informational text about key figures in history and their contributions towards “the right to life, liberty and the pursuit of happiness.” They will be able to answer comprehension questions referring directly to the text as a basis for their answers. They will interpret maps, photographs, and diagrams to gain additional information. (3.RI.1, 3.RI.2, 3.RI.7) • Students will be able to explain or clarify their own point of view from the authors (3.RI.6).
<p>Resources & Links to Technology</p> <ul style="list-style-type: none"> • Interactive social studies games • http://www.corestandards.org/ELA-Literacy (Select Appendix C for grade-level writing samples with annotation) • www.eduplace.com/kids/hmss (Grade-level appropriate biographies) • Harcourt Third Grade Horizons Social Studies, Biographies (see index R20) • Harcourt Third Grade Horizons Social Studies, Memorial Day, p. 234 • Houghton Mifflin Third Grade English, Listening and Speaking Strategies, Interviews pp. H9 and H10 • Houghton Mifflin Third Grade Reading, Theme 4, Focus on Biographies, pp. 120–147 		

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

<p>Big Idea 1, Quarter 4 Students will analyze local historic artifacts, such as historic paintings, photographs, clothing, historic artifacts, and architecture to synthesize and apply concepts on how these items help define our current communities and culture.</p>	<p>Essential Question(s): What are some key relationships between important 1900-era artifacts and their modern day equivalency?</p>
<p>Guam Standards:</p> <p>3.1.4 Observe and describe local or regional historic artifacts and sites and generate questions about their function, construction, and significance.</p> <p>3.2.2 Observe visual sources, such as historic paintings, photographs, or illustrations that accompany historical narratives, and describe details, such as clothing, setting, or action.</p> <p>3.2.3 <i>Create and interpret time lines.</i></p> <p>3.3.1 <i>Read and construct maps, tables, graphs, and charts.</i></p>	<p>CCSS ELA Support Standards:</p> <p>3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3.RI.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.</p> <p>3.W.3a-e 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 description of actions, thoughts, and feelings to develop experiences and events or show the responses of characters to situations ; c) Use temporal words and phrases to signal event order; d) Provide a sense of closure.</p> <p>3.W.7 Conduct short research projects that build knowledge about a topic.</p>
<p>Elements of the Standard(s) – What’s the meaning? Students will identify and describe a variety of historic artifacts, paintings, photographs, sites, and illustrations. Their observations will include determining their function, construction, and/or significance to Guam (3.1.4, 3.2.2). Students will construct and interpret timelines showing the chronology of historical artifacts (3.2.3, 3.3.1). They will discuss connections between historic artifacts and modern-day equivalencies and how they help explain our culture.</p>	

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<p>Key Vocabulary artifact, architecture, setting, historical narrative</p>	<p>Links to Prior Learning</p> <ul style="list-style-type: none"> Students explained the information that historic timelines convey and created timelines of their own life (2.2.3). Students described traditional food, customs sports, games, and music of the place from which they originated (2.1.1). 	<p>Links to Future Learning</p> <ul style="list-style-type: none"> Students will examine the difference between historical fact and opinion (4.2.1). Students will recognize national and local historical site and describe their function and significance (4.2.2). They will place major events from the development of Guam in chronological order on a timeline (4.2.3).
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none"> Students individually create <u>additional</u> illustrations for historical narratives that are read in pairs or small groups that include details depicting clothing, setting, or actions. One option is to read to students without showing any illustrations and have them draw. Have them compare the details of their drawing with the historical pictures, painting or photographs (3.1.4, 3.2.2). Display expectations for historical narratives for students. Model (while thinking aloud) how to extract information collected on a graphic organizer (e.g., main idea and supporting details) to provide an example for students (3.1.4, 3.2.2). Students work in pairs or small groups to research an artifact then collaboratively compose a narrative that includes these informational details. The narrative can include a character and setting that is described in details according to the historic period. Actions or events will unfold naturally with reference to a timeline (3.2.3). Students will use temporal words and phrases to signal event order in text and provide a sense of closure. Illustrations, maps and timelines can be modeled as they present their story to peers. Create an artifact timeline around the room using pictures and text (e.g., dates, captions, brief explanations). Have students in pairs or small groups contribute to the time line by selecting an artifact that they will research (3.1.4, 3.2.2, 3.2.3, 3.3.1). 		<p>CCSS ELA Support Standards</p> <ul style="list-style-type: none"> Students will listen to and read informational text. They will be able to determine and recount the main idea and supporting details of historical narratives (3.RI.1, 3.RI.2, 3.RI.10). Students will conduct short research projects and write narratives using sequenced events, descriptive details and a sense of closure (3.W.3a, 3.W.7).
<p>Resources & Links to Technology</p>		

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

- <http://www.corestandards.org/ELA-Literacy> (Select Appendix C for grade-level writing samples with annotation.)
- [Interactive social studies games](#)
- <http://guampedia.com/> (Maps and historical information regarding Guam)
- <http://www.guam-online.com/> (Maps and information regarding Guam)
- <http://www.guam.gov/> (Maps and information regarding Guam)
- www.studenthandouts.com (Select “Graphic Organizers” in left column)
- Harcourt Third Grade Horizons Social Studies, U.5, L.2, Exploring Your Community’s Past, pp. 300–313
- Houghton Mifflin Third Grade Reading, Theme 5, How to Look at Fine Art, pp. 210–213

<p>Big Idea 2, Quarter 4 Students will explain how local government services are financed.</p>	<p>Essential Question(s): What are the needs of taxes and what are some examples? Are taxes (property, sales, income) a good idea? Why or why not? Why does every community need to have a government? What are the basic principles of our government? What might happen if the government in your community stopped working?</p>
<p>Guam Standards: 3.5.1 Define what taxes are, explain their purposes, and, with the help of teachers and parents, give examples of different kinds of taxes.</p>	<p>CCSS ELA Support Standards: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. 3.RI.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. 3.W.3a-e 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 description of actions, thoughts, and feelings to</p>

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

		<p>develop experiences and events or show the responses of characters to situations ; c) Use temporal words and phrases to signal event order; d) Provide a sense of closure.</p> <p>3.W.7 Conduct short research projects that build knowledge about a topic.</p>																		
<p>Elements of the Standard(s) – What’s the meaning? Students will examine the needs of communities and how they are supported by personnel and finances. Through discussions facilitated by adults, students will evaluate whether or not government or taxes are necessary. (3.5.1)</p>																				
<p>Key Vocabulary finance, tax, department, needs and wants, consumer, producer, service</p>	<p>Links to Prior Learning</p> <ul style="list-style-type: none"> Students described the impact of resources (e.g., natural, capital, human) on the community (2.5.1). Students gave examples of consumers and producers (2.5.2). 	<p>Links to Future Learning</p> <ul style="list-style-type: none"> Students will identify the economic motivation for immigration to Guam (4.5.2). They will also be able to explain how people on Guam make a living to meet their needs and wants (4.5.1). 																		
<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <ul style="list-style-type: none"> Provide students with graphic organizers (e.g., cause and effect, problem/solution) to complete prior to discussing issues regarding taxes and government. Example: “Write ‘garbage strike’ on the <i>cause</i> side of the graphic organizer. Now on the <i>effect</i> side, list as many things that might happen if we didn’t pay taxes to have the garbage collected as you can.” Create a large chart or table that students will participate in completing by listing the needs and wants of a community, who services it and how it is financed. <table border="1"> <thead> <tr> <th>Needs and Wants</th><th>Personnel</th><th>Financed by</th></tr> </thead> <tbody> <tr> <td>Public parks</td><td>Parks & Recreation Dept.</td><td></td></tr> <tr> <td>Public beaches</td><td>Department of Safety</td><td></td></tr> <tr> <td>Garbage removal</td><td>Sanitation Dept.</td><td></td></tr> <tr> <td>Wild animals</td><td>Animal Control</td><td></td></tr> <tr> <td>Fire prevention</td><td>Fire Department</td><td></td></tr> </tbody> </table>		Needs and Wants	Personnel	Financed by	Public parks	Parks & Recreation Dept.		Public beaches	Department of Safety		Garbage removal	Sanitation Dept.		Wild animals	Animal Control		Fire prevention	Fire Department		<p>CCSS ELA Support Standards</p> <ul style="list-style-type: none"> Students will listen to and read informational text. They will be able to determine and recount the main idea and supporting details (3.RI.1, 3.RI.2, 3.RI.10). Students will conduct short research projects and write narratives using sequenced events, descriptive details and a sense of closure (3.W.3a, 3.W.7).
Needs and Wants	Personnel	Financed by																		
Public parks	Parks & Recreation Dept.																			
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Wild animals	Animal Control																			
Fire prevention	Fire Department																			

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized

Crime prevention	Police Department	
Public Education	Education	
<p>The results from this chart will help students determine if taxes or government is or is not a good idea.</p> <ul style="list-style-type: none">• Invite personnel from different departments (see list above) to come and talk to students. Provide the presenter with a list of expectations for questions to be answered during their visit.• Students will collaborate in pairs or small groups to write a narrative in which provide descriptive detail and clear event sequence about what would happen if one of the departments stopped working (3.W.3a, 3.W.7).		
<p>Resources & Links to Technology</p> <ul style="list-style-type: none">• http://www.corestandards.org/ELA-Literacy (Select Appendix C for grade-level writing samples with annotation.)• Interactive social studies games• http://www.guam-online.com/ (Maps and information regarding Guam)• http://www.guam.gov/ (Maps and information regarding Guam)• www.studenthandouts.com (Select “Graphic Organizers” in left column) (cause and effect graphic organizer)• Harcourt Third Grade Horizons Social Studies, U.2, L.2, pp. 78–89		

Italic Information: Recursive standard – repeated in at least one other quarter

BOLD information: Standards that should be emphasized



Content: History	Grade/Course: Three	Timeline: 45–60 minutes
Standard(s): HSS Standards: 3.3.1 Read and construct maps, tables, graphs, and charts. 3.3.5 Identify and apply the compass rose, grids, and symbols to locate places on maps and globes. ELA Support Standards: 3.RI.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).		
Lesson Overview: Students will create maps using various elements (e.g., rose compass, map legend, map title, distance scale, cardinal directions).	Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">Describe how a globe is different from a map.Explain how map key or legend and distance scales are helpful.Explain why a compass rose is necessary on a map.	
Vocabulary: map title, map key/legend, map symbols, distance scale, compass rose, cardinal directions	Focus Question(s): <ul style="list-style-type: none">How is a globe different from a map? (A globe is a sphere representing the world and main elements such as oceans, continents, and countries. Maps are flat, generally representing a closer view of a region.)How is a map key and distance scale helpful? (Map keys identify symbols representing buildings, highways, parks, schools, etc. Distance scale is used to calculate the distance between cities, etc.)Why is a compass rose necessary on a map? (A compass rose shows the cardinal directions: north, south, east, and west on a map.)	
Description of Lesson (including instructional strategies): Prior Learning: <ul style="list-style-type: none">Globes (Houghton Mifflin Horizons, Grade 3, pp. 36–41).Procedures for working with partners Anticipatory Set: (5 minutes) Say to students: “Today, we’re going to look closer at areas using a map rather than a globe. <i>Discuss with your partner why we might use maps.</i> ” Instruction and Strategies: Guided Practice: (15 minutes) Part One (locating and defining): <ul style="list-style-type: none">Provide students with various maps (e.g., resource, political, climate, physical, road maps).Provide different map questions (e.g., location of capitol? River? Railroad? Major highway? Amount of rainfall?) “Put your finger on the capitol, and check to see if your partner is pointing to the same thing.		

Instructions that are italicized include student engagement strategies.

Instructions that are underlined embed checking for understanding.

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Place your finger on a railroad, and check to see if your partner has found the same one."

- Students *discuss with their partners and identify what kind of map* they have based on the questions they are able to answer. "What does this map show me?" (Marzano: Cooperative Learning)
- Ask *students to locate map elements* on their maps (e.g., map title, map key, distance scale, compass rose, cardinal directions). *"Put your finger on the map title. Check to see if your partner is pointing to the same thing. Place your finger on the map key, and check to see if your partner has found the same thing."*

Part Two (Applying and creating): (15 minutes)

- Provide students with an outline of a map (Guam, or city) with a distance scale provided.
- *Students complete the map* according to directions (e.g., teacher assigned or students select a map title from a can with different map titles listed).
- Post (as visual support) the list of elements each map needs to display (e.g., rose compass, map legend, map title, distance scale, cardinal directions).

Formative Assessment: (15 minutes)

- *Students present and explain* their maps to their partner, group, or whole class.

Closure: (5 minutes)

Use partner discussion and whole class to share the focus questions.

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- *Students work with partners* or groups of students with varied abilities.
- *Students work in small groups* to complete map assignments (e.g., each student is given a specific label to identify on the map; each student creates a different type of map).

Students may *create different types* of maps:

- Climate: general information about climate and rainfall
- Resource: locations of natural resources
- Physical: location of mountains, rivers, and lakes
- Political: location of boundaries, capitol, and major cities
- Road maps: location of major roads, railroads, airports, cities, and points of interest
- Maps of the school, town, or shopping center

Resources (Textbook and Supplemental):

- www.guamonline.com
- Local maps of region completed
- Local maps of region (outline only)
- Houghton Mifflin Horizons, Grade 3, pp. 42–43

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Content: History	Grade/Course: Three	Timeline: 50 minutes
Standard(s): HSS Standards: 3.3.1 Read and construct maps, tables, graphs, and charts. 3.3.6 Draw a map indicating various locations in the school. 3.3.7 Draw maps of places and regions that contain map elements. ELA Support Standards: 3.RI.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).		
Lesson Overview: Students will create a map using map elements (e.g., title, compass rose, legend, scale, grid system) to show different locations in the school and write directions based on their map.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none"> • Use map elements to create a map. • Read a map to find a location in the school. • Write directions from a map.
Vocabulary: map title, compass rose, legend, scale, grid, cardinal directions, symbols		Focus Question(s): <ul style="list-style-type: none"> • How can you use a map to find a location? • What are the steps in writing directions on a map?
Description of Lesson (including instructional strategies): Anticipatory Set: (2 minutes) <ul style="list-style-type: none"> • <i>Provide question prompt for students to discuss in pairs or small groups: “Where have you gone—like a shopping mall, large school campus, or hospital—and tried to figure out where you need to go?”</i> Have students discuss for 1 minute. • Continue with: “In the past we’ve created different types of maps and used map elements to point out various items so you’re familiar with maps. Today, we’re going create a map that each of you will use to find a _____” (e.g., candy treat, certificate for map reading, ticket for computer time). Instruction and Strategies: Part One: I-do (10 minutes) <ul style="list-style-type: none"> • Display (chart paper, document camera, or overhead projector for visual support) the outline of the school. • Begin to label the areas on the map with students assisting (e.g., hallway, second-grade classroom, library, cafeteria, office, restrooms). • Place a star to indicate “You are here.” • Complete the map key with simple pictures, map title, and cardinal directions. • Review these vocabulary terms by pointing <u>while the class chorally responds by identifying the term.</u> • Display simple directions: Instructions for writing map directions: <ol style="list-style-type: none"> 1. Choose where you want the reader to end. Write the location on a list (a “teacher” list for you to use to check student’s work and later to distribute ‘rewards’). 2. Place a star where the reader begins. 		

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3. Begin giving directions from the classroom door. Each time the reader has to turn, you will number it as the next step. Continue until the reader will have reached the location you selected in step one.

- Provide an example of how to list the directions:
For example: "I want to take my reader to the library (point to the library on the map), and they are here (point to the classroom location). I will draw a star where my reader is in the classroom. Then what do they have to do first? It may look like this . . ."
 1. Go to classroom doorway and turn right into hall.
 2. Go to end of hallway past five doors and turn left.
 3. Turn right at second doorway (library).
 4. Arrive at front desk and introduce yourself.

Guided Practice:

Part Two: We-do (20 minutes)

- Provide students with outline of a map (school).
- Display (for visual support) elements to be included on the maps (e.g., compass rose, map title, legend).
- Students **work in pairs or small groups** to complete the map according to directions while teacher monitors (Marzano: Cooperative Learning).

Instructions for writing map directions:

1. Choose where you want the reader to end. Write it on the teacher's list.
 2. Place a star where the reader begins.
 3. Begin giving directions from the classroom door. Each time the reader has to turn, you will number it as the next step. Continue until the reader will have reached the location you selected in step one.
- Students present and explain their maps and a set of directions to another partner, group, or whole class.

Part Three: You-do (15 minutes)

- The final destination for each map is provided on the teacher's list.
- Deliver the reward to the locations that students have indicated.
- Student pairs or groups trade maps and follow the directions provided.

Formative Assessment:

- Student maps are handed in as confirmation that their directions accurately got students from the classroom to another location.

Closure: (2 minutes)

- Provide question prompts for students to discuss in pairs or small groups: "What are the elements of a map? How do you use a map to find a location?"

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- Students work with partners or groups of students with varied abilities.
Optional: each student is given a specific label (e.g., library, cafeteria, nurse's office) to identify on his or her map.

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- Students who need to be challenged can be supplied with a ‘bonus list of labels’ (e.g., bus parking, principal’s office, Kindergarten classrooms).

Resources (Textbook and Supplemental):

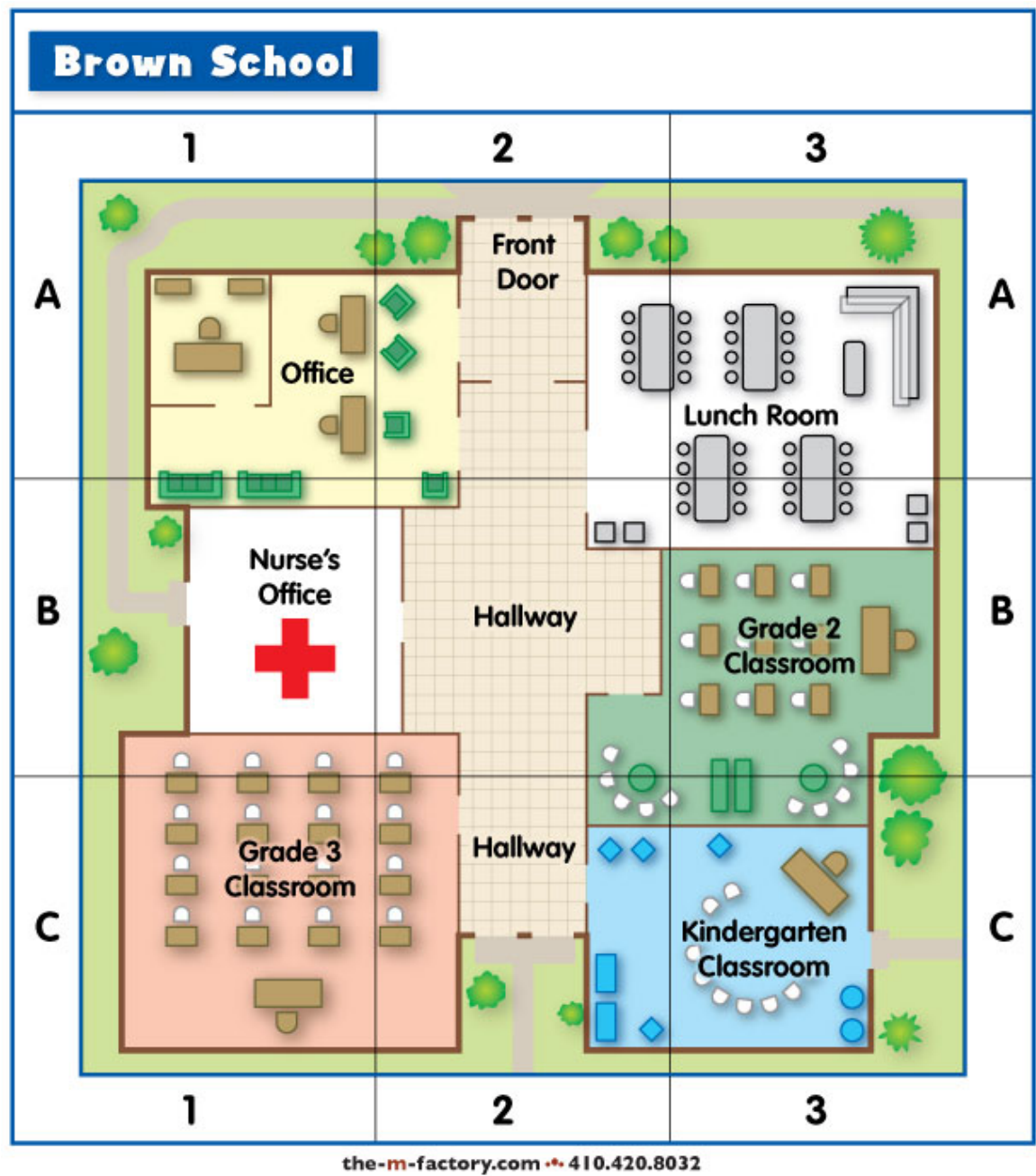
- Harcourt Horizons Third Grade Social Studies, U.1, Chapter 2, pp. 42–43 image and description of a rural map
- Harcourt Second Grade Horizons Social Studies, pp. 19, 120–127 additional pictures and definitions
- GeoSkills CD-ROM: practice activities for map and globe skills
- Map of your school property (See fire-drill maps for school.) (See supplemental map examples.)
- www.eduplace.com – interactive map skills practice, free maps to download
- Rewards, treats, or certificates—to be discovered

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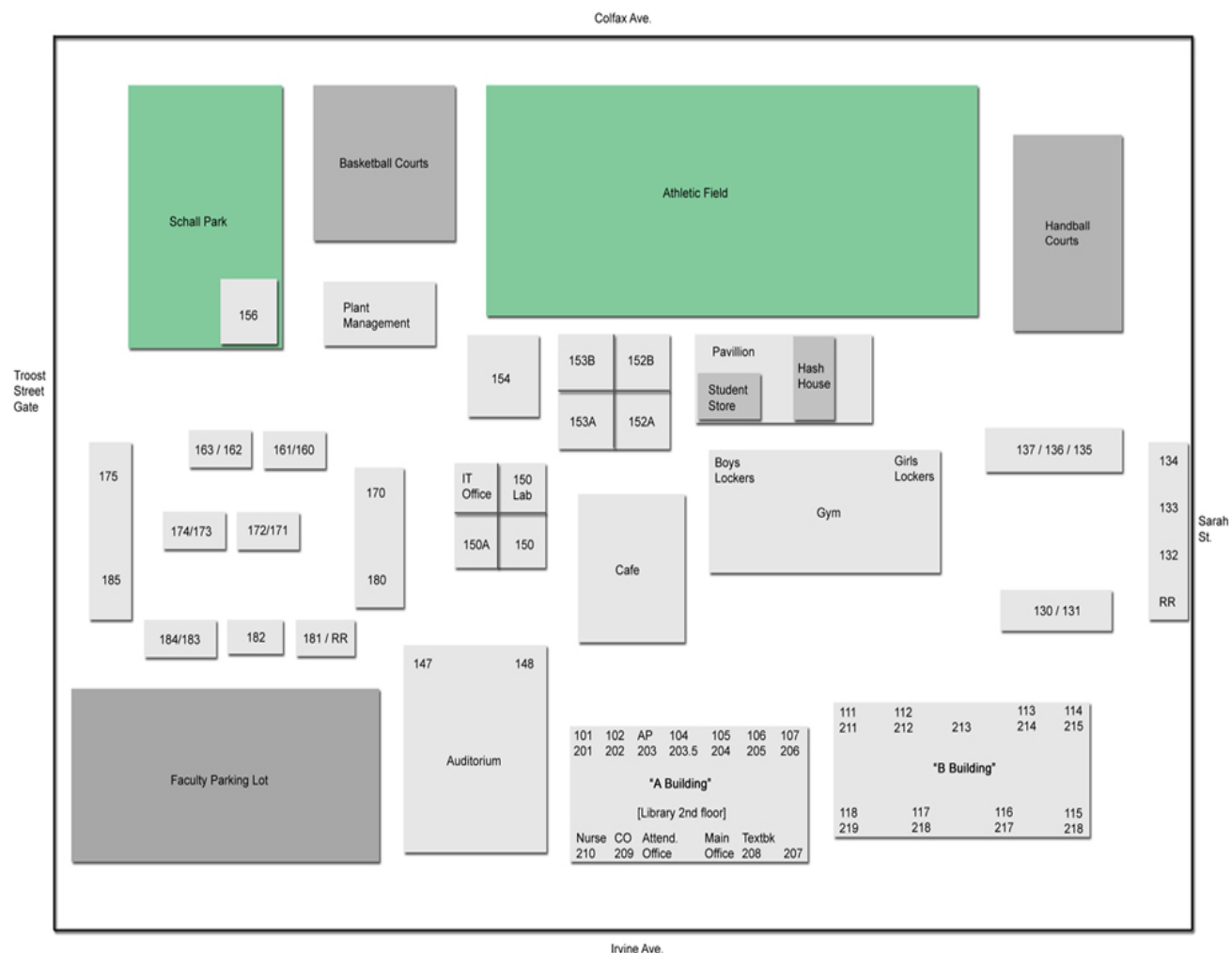
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Examples of school maps:



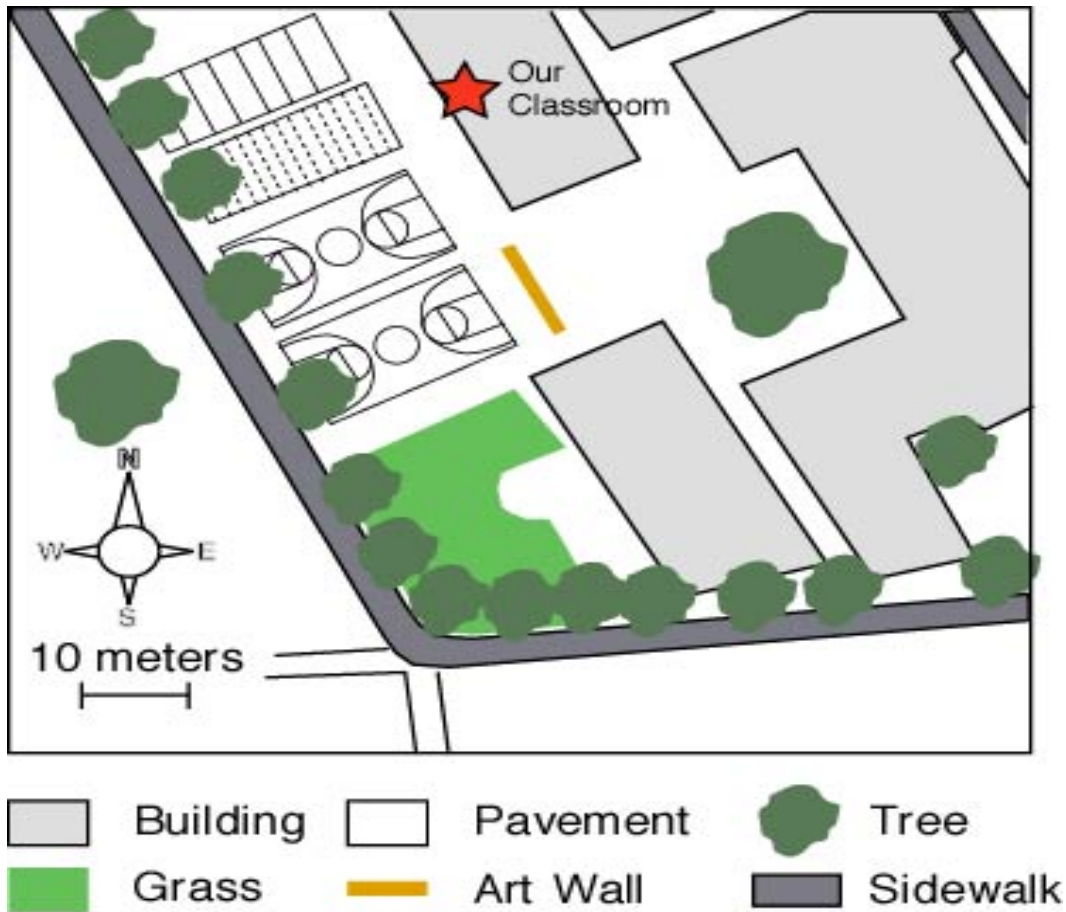
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Content: HSS	Grade/Course: Three	Timeline: 60 minutes
Standard(s): HSS Standard: 3.4.2 Explain the importance of the basic principles that create the foundation of a republican form of government, including the following: <ul style="list-style-type: none">Individual rights to life, liberty, and the pursuit of happiness and equality under the law CCSS ELA Support Standard: 3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.		
Lesson Overview: Students will be able to explain in oral and written form what individual rights to life, liberty, pursuit of happiness, and equality under the law mean.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none">Identify and summarize the basic principles that form the foundation of a republican government.
Vocabulary: principles, liberty, rights, equality, foundation, pursuit, republic, privileges		Focus Question(s): <ul style="list-style-type: none">How does government affect daily life?Which principle is most important? Explain why.
Description of Lesson (including instructional strategies): Anticipatory Set: (5 minutes) <ul style="list-style-type: none">Use links in the resources to generate a discussion about qualities of good citizenship.Ask students: "Who is a good citizen?" (Guide students to discuss good citizen traits.) "Why do we need good citizens?" Create and Post: Web graphic organizers that record the responses about traits of good citizens and the big ideas of why good citizens are needed (Harcourt Horizons, People and Communities TE vol. 2, page T20) Instruction and Strategies: (20 minutes) <ul style="list-style-type: none">Have students read the vocabulary words and then find the meaning from the dictionary.<u>Lead the class in comparing and contrasting what a community with good citizens vs. a community with bad citizens looks like through a Venn diagram.</u> (Marzano: Identifying Similarities and Differences, Harcourt Horizons, People and Communities TE vol. 2, page T12)<i>Students copy the Venn diagram of a good community and a bad community.</i>Have <i>students choose</i> which community they want to live in and <i>Pair-Share with a partner and explain their reasons.</i> (Marzano: Cooperative Learning)Prompt students into a discussion of rights and guiding principles that form a good community.Show students the rights and guiding principles that form a good community.Make a correlation of how just as there are guiding principles that form a good community, there are guiding principles that form our government.List the four guiding principles that form the foundation of a republican government.Elaborate on each guiding principle and what meaning and impact (cause/effect) it has had, and continues to have.		

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Guided Practice: (15 minutes)

Make a categories chart with the four principles as headings under which *students will write words or sentences about the principles that they've learned.* (Marzano: Cues, Questions, and Advance Organizers)

Individual Rights to Life	Liberty	Pursuit of Happiness	Equality Under the Law
Safety			
Murder is a crime.			

Formative Assessment: (10 minutes)

Journal their thoughts about how government affects daily life and which principle is the most important.

See attachment for grading rubrics.

Closure: (10 minutes)

Do a Ball Toss activity. To start the activity, give the ball to a student and ask a question. The student can answer the question and toss the ball to a student of his choice who will answer the next question, or he can decide not to answer the question and toss it. Allow students only a set number of passes on questions. Create questions that allow students to process the four principles and how they apply to daily life (using the focus questions is a good start).

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- For struggling students, use simpler directions and provide pictures depicting the four principles.
- For high achievers, have them do independent research on George Washington.

Resources (Textbook and Supplemental):

Web sites:

- www.timeforcitizenship.org/citizenship.php
- www.youtube.com/watch?v=FzAJyK0ovo8

Textbook:

Harcourt Horizons, People and Communities TE vol. 2

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Journaling Rubric

	Excellent 3	Good 2	Poor 1
Question: How does government affect daily life?	Response includes three pieces of evidence of how government affects daily life.	Response includes two pieces of evidence of how government affects daily life.	Response includes one piece of evidence of how government affects daily life.
Question: Which principle is the most important and why?	Response includes three reasons why the chosen principle is the most important.	Response includes two reasons why the chosen principle is the most important.	Response includes one reason why the chosen principle is the most important.

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Content: HSS	Grade/Course: Three	Timeline: 60 minutes
Standard(s): HSS Standard: 3.5.1 Define what taxes are, explain their purposes, and, with the help of teachers and parents, give examples of different kinds of taxes. CCSS ELA Support Standards: 3.RL.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. 3.W.7 Conduct short research projects that build knowledge about a topic.		
Lesson Overview: In this lesson, students will work in small groups to categorize the different types of taxes and the government services it supports on a Concept Frame. As a result of their research, they will work in pairs to create interview questions that they may ask professionals in the field of taxes.		Lesson Objective(s): In this lesson, students will be able to <ul style="list-style-type: none"> • Research types of taxes using a Concept Frame. • Create interview questions related to property, income, and sales tax that may be utilized to interview professionals in the field of taxes.
Vocabulary: property tax, sales tax, income tax, government services, finance		Focus Question(s): How do taxes benefit people?
Description of Lesson (including instructional strategies): Anticipatory Set: (10 minutes) <ul style="list-style-type: none"> • Distribute <u>Empty Outline sheet</u> (see attached). • Say: "You will learn about the <u>3 branches of government</u> in your groups and will work together to complete the missing information of the worksheet." • Say: "Now focus on the legislative branch. The legislative is the branch makes the law and collects taxes." • Say: "What are taxes? I will call on a student to help demonstrate one type of tax." • Select a student to participate in a fish bowl activity. Give the student play money and an item to purchase with a price tag. The student will pretend to purchase the item without the sales tax, and you will act as the cashier and announce a total including the sales tax. • Say: "Why does the price tag say \$_____, and the cashier asks for more than the price tag?" Instruction and Strategies: (10–15 minutes) <ul style="list-style-type: none"> • Explain to students that they will read about how citizens in a community need many services that are provided by taxes. While they read, they will be taking notes to collect new information and answer some of the questions about taxes. (Marzano: Summarizing and Note Taking) • <i>Pair up students to read pp. 84–89, Harcourt 2005, and emphasize note taking.</i> Guided Practice: (15 minutes)		

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- Discuss with the class about what they read and the notes they took. Pass out the Concept Frame Worksheet to each group.
- Allow students to *work in small groups to complete* their Concept Frame Worksheet.
- Assign each group a government service (health and safety, public education, etc.) to *formulate a question* about the service it provides or how it benefits from taxes.
- Combine each group question to *create an Interview Questionnaire*.

Formative Assessment: (5 minutes)

- Empty Outline Attachment 1
- Concept Frame Attachment 2
- Q & A Mix-Up Attachment 3

Closure: (5–7 minutes)

Students reflect about what they learned today and *answer the focus question*.

Independent Practice:

This concept is not yet fully developed for students to work independently.

Accommodations/Modifications:

- Give extra support in completing the Concept Frame Worksheet.
- For students needing a challenge, assign two government services and increase number of questions.

Resources (Textbook and Supplemental):

- Harcourt Third Grade Horizons, U.2. Chapter 3, pp. 84–89, 76–77, 90–95
- Concept Frame Sheets
- Q & A Mix-Up (Greenstein, L. (2010))
- Empty Outline (Greenstein, L. (2010))
- Three attachments included

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Attachment 1

Formative Assessment

Empty Outline

3 Branches of Government	Job
Executive Branch	
	Creates laws and collects taxes
Judicial Branch	

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Attachment 2

Concept Frame

Type of Tax	How Collected	Services It Supports

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Attachment 3

Formative Assessment

Q & A Mix-Up

Q: Public service is doing work for	A: the good of the community.
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Q: Work done by the government for everyone in a city, town or village is known as	A: a government service.
------------------------------------------------------------------------------------	--------------------------

Q: The public works department	A: collects garbage and keeps streets clean and in good repair.
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Q: Taxes collected from people who have land and property in the community	A: property tax
----------------------------------------------------------------------------	-----------------

Q: Extra money that that people pay each time they buy something	A: sales tax
------------------------------------------------------------------	--------------

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