Wachusett Regional School District

Priority Standards for Mastery



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Reading Standards for Literature

Mastery

- K.RL.1: With prompting and support, ask and answer questions about key details in a text.
- K.RL.2: With prompting and support, retell familiar stories, including key details. identify the main topic and retell key details of a text.
- K.RL.3: With prompting and support, identify characters, settings, and major events in a story.
- K.RL.5: Recognize common types of texts and characteristics of their structure (e.g., story elements in books; rhyme, rhythm, and repetition in poems).
- K.RL.10: Actively engage in group reading activities with purpose and understanding.

Exposure

- K.RL.4: Ask and answer questions about unknown words in a text.
- K.RL.6: With prompting and support, explain that reading the cover or title page is how to find out who created a book; name the author and illustrator of a book and define the role of each in telling the story.
- K.RL.7: With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).
- K.RL.9: With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.

Reading Standards for Information

Mastery

- K.RI.1: With prompting and support, ask and answer questions about key details in a text.
- K.RI.2: With prompting and support, identify the main topic and retell key details of a text.
- K.RI.3: With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.

- K.RI.4: With prompting and support, ask and answer questions about unknown words in a text.
- K.RI.5: Identify the front cover, back cover, and title page of a book.
- K.RI.6: Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.
- K.RI.7: With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
- K.RI.8: With prompting and support, identify the reasons an author gives to support points in a text.
- K.RI.9: With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
- K.RI.10: Actively engage in group reading activities with purpose and understanding.

Reading Standards: Foundational Skills

Mastery

- K.RF.3: Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary sound or many of the most frequent sounds for each consonant.
 - b. Associate the long and short sounds with common spellings (graphemes) for the five major vowels.
 - c. Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does).
 - d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

Exposure

- K.RF.1: Demonstrate understanding of the organization and basic features of print.
 - \circ $\,$ a. Follow words from left to right, top to bottom, and page by page.
 - b. Recognize that spoken words are represented in written language by specific sequences of letters.
 - c. Understand that words are separated by spaces in print.
 - d. Recognize and name all upper- and lowercase letters of the alphabet.
 - K.RF.2: Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
 - a. Recognize and produce rhyming words.
 - b. Count, pronounce, blend, and segment syllables in spoken words.
 - c. Blend and segment onsets and rimes of single-syllable spoken words.
 - d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three phoneme (consonant-vowel-consonant, or CVC) words.* (This does not include CVCs ending with /l/, /r/, or /x/.)
 - $\circ~$ e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.
- K.RF.4: Read early-emergent-reader texts with purpose and understanding.

Writing Standards

Mastery

- K.W.1: Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .).
- K.W.3: Use a combination of drawing, dictating, and writing to narrate a single event or experience, or several loosely linked events or experiences; sequence the narrative appropriately and provide a reaction to what it describes.
 - a. For poems, use rhyming words to create structure. (See kindergarten Reading Foundational Skills standard 2a.)

Exposure

• K.W.2: Use a combination of drawing, dictating, and writing to compose informative/explanatory texts that name and supply some information about a topic.

- K.W.5: With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.
 - a. (Begins in grade 3)
 - B. Demonstrate the ability to use vocabulary appropriate for kindergarten (as described in kindergarten Language standards 4–6).
- K.W.6: With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.
- K.W.7: Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).
- K.W.8: With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- K.W.10: Write or dictate writing routinely for a range of tasks, purposes, and audiences.

Speaking and Listening Standards

Mastery

- K.SL.1: Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
 - a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).
 - $\circ~$ b. Continue a conversation through multiple exchanges.

Exposure

- K.S/L.2: Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.
- K.S/L.3: Ask and answer questions in order to seek help, get information, or clarify something that is not understood
- K.S/L.4: Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
- K.S/L.5: Add drawings or other visual displays to descriptions as desired to provide additional detail.
- K.S/L.6: Speak audibly and express thoughts, feelings, and ideas clearly.

Language Skills

- K.L.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned previously. Sentence *Structure and Meaning*
 - a. Demonstrate the ability to produce and expand complete sentences using frequently occurring nouns, pronouns, adjectives, verbs, question words, and prepositions; name and use in context numbers 0–100 (see kindergarten mathematics standards for Counting and Cardinality).
 - \circ b. Form questions that seek additional information, rather than a simple yes/no answer.

Word Usage

 $\circ~$ c. Form regular plural nouns or ally by adding /s/ or /es/.

- K.L.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Print upper- and lowercase letters.
 - $\circ~$ b. Capitalize the first word in a sentence and the pronoun I.
 - c. Recognize and name end punctuation.
 - d. Write a letter or letters for most consonant and short-vowel sounds (phonemes).
 - e. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.
 - f. Write numbers 0–20 (see kindergarten mathematics standards for Counting and Cardinality).
- K.L.4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.
 - a. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck).
- K.L.5: With guidance and support from adults, explore word relationships and nuances in word meanings.
 - a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.
 - b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).
 - c. Identify real-life connections between words and their use (e.g., note places at school that are colorful).
 - d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings.
- K.L.6: Use words and phrases acquired through conversations, activities in the kindergarten curriculum, reading and being read to, and responding to texts.

Reading Standards for Literature

Mastery

- 1.RL.1: Ask and answer questions about key details in a text.
- 1.RL.2: Retell stories, including key details, and demonstrate understanding of their central message or lesson.
- 1.RL.3: Describe characters, settings, and major events in a story, using key details.

Exposure

- 1.RL.4: Identify words and phrases in stories or poems that suggest feelings or appeal to the senses. (See grade 1 Language standards 4–6 on applying knowledge of vocabulary to reading.)
- 1.RL.5: Identify characteristics of common types of stories, including folktales and fairy tales.
- 1.RL.6: Identify who is telling the story at various points in a text.
- 1.RL.7: Use illustrations and details in a story to describe its characters, setting, or events.
- 1.RL.9: Compare and contrast the adventures and experiences of characters in stories.
- 1.RL.10: With prompting and support, read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 1.

Reading Standards for Informational Text

Mastery

- 1.RI.1: Ask and answer questions about key details in a text.
- 1.RI.2: Identify the main topic and retell key details of a text.
- 1.RI.3: Identify characters, settings, and major events in a story; describe the connection between two individuals, events, ideas, or pieces of information in a text.

Exposure

- 1.RI.4: Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
- 1.RI.5: Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
- 1.RI.6: Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
- 1.RI.7: Use the illustrations and details in a text to describe its key ideas.
- 1.RI.8: Identify the reasons an author gives to support points in a text.
- 1.RI.9: Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
- 1.RI.10: With prompting and support, read and comprehend informational texts exhibiting complexity appropriate for at least grade 1.

Reading Standards: Foundational Skills

- 1.RF.3: Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Know the spelling-sound correspondences for common consonant digraphs.
 - b. Decode regularly spelled one-syllable words.

- c. Know final -e and common vowel team conventions for representing long vowel sounds.
- d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
- e. Decode two-syllable words following basic patterns by breaking the words into syllables.
- f. Read words with inflectional endings.
- g. Recognize and read grade-appropriate irregularly spelled words.

- 1.RF.1: Demonstrate understanding of the organization and basic features of print. a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
- 1.RF.2: Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
 - a. Distinguish long from short vowel sounds in spoken single-syllable words.
 - b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.
 - c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.
 - d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).
- 1.RF.4: Read with sufficient accuracy and fluency to support comprehension.
 - a. Read grade-level text with purpose and understanding.
 - b. Read grade-level text orally with accuracy, appropriate rate, and expression on successive readings.
 - c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing Standards

Mastery

- 1.W.1: Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
- 1.W.2: Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.
- 1.W.3: Write narratives in prose or poem form that recount two or more appropriately sequenced events or experiences, include some details about what happened or was experienced, use temporal words to signal event order where appropriate, and provide some sense of closure.
 - a. For poems, use rhyming words and words that repeat long or short vowel sounds to create structure (see grade 1 Reading Foundational Skills standard 2a).

- 1.W.4: Produce writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- 1.W.5: With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.
 - a. (Begins in grade 3)

- b. Demonstrate the ability to choose and use appropriate vocabulary (as described in Language standards 4–6 up to and including grade 1).
- 1.W.6: With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
- 1.W.7: Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions).
- 1.W.8: With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- 1.W.10: Write routinely for a range of tasks, purposes, and audiences.

Speaking and Listening Standards

Mastery

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

Exposure

- 1.S/L.2: Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
- 1.S/L.3: Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
- 1.S/L.4: Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly and using appropriate vocabulary. (See grade 1 Language standards 4–6 for specific expectations regarding vocabulary.)
- 1.S/L.5: Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
- 1.S/L.6: Produce complete sentences when appropriate to task and situation. (See Language Standard 1).

Language Skills

Mastery

- 1.L.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. *Sentence Structure and Meaning*
 - a. Produce and expand simple and compound sentences.
 - b. Demonstrate understanding that a question is a type of sentence.
 - c. Use singular and plural nouns with matching verbs in sentences.
 - $\circ~$ d. Use verbs in sentences to convey a sense of past, present, and future.

Word Usage

- $\circ~$ e. Use common, proper, and possessive nouns.
- f. Use personal, possessive, and indefinite pronouns.

- g. Use frequently occurring prepositions, adjectives, adverbs, conjunctions, and articles.
- 1.L.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Print legibly all upper- and lowercase letters.
 - b. Use end punctuation for sentences.
 - c. Capitalize the names of months and people.
 - d. Use commas in dates and to separate individual words in a series.
 - e. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.
 - f. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.
 - g. Write numerals up to 120 (see grade 1 mathematics standards for Numbers and Operations in Base 10); understand that numbers are also written as words; write words for numbers from one to ten.

- 1.L.4.MA.4: Ask and answer questions about the meanings of new words and phrases introduced through books, activities, and play. MA.4.a. With guidance and support, generate words that are similar in meaning (e.g., happy/glad, angry/mad). b. (Begins in kindergarten).
- 1.L.5.MA.5: With guidance and support from adults, explore word relationships and nuances of word meanings.
 - a. Demonstrate understanding of concepts by sorting common objects into categories (e.g., sort objects by color, shape, or texture).
 - b. (Begins in kindergarten)
 - c. Apply words learned in classroom activities to real-life examples (e.g., name places in school that are fun, quiet, or noisy).
 - d. (Begins in kindergarten)
- 1.L.MA.6: Use words and phrases acquired through conversations, activities in the grade 1 curriculum, reading and being read to, and responding to texts, including using frequently occurring conjunctions (e.g., because) to signal simple relationships. (See grade 1 Reading Literature standard 4 and Reading Informational Text standard 4 on applying knowledge of vocabulary to reading; see grade 1 Writing standard 5 and Speaking and Listening standard 4 on strengthening writing and presentations by applying knowledge of vocabulary.)

Reading Standards for Literature

Mastery

- 2.RL.1: Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- 2.RL.2: Retell stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
- 2.RL.3: Describe how characters in a story respond to major events and challenges.
- 2.RL.9: Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

Exposure

- 2.RL.4: Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song. (See grade 2 Language standards 4–6 on applying knowledge of vocabulary to reading.)
- 2.RL5: Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
- 2.RL.6: Explain what dialogue is and how it can reveal characters' thoughts and perspectives.
- 2.RL.7: Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
- 2.RL.10: Independently and proficiently read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 2.

Reading Standards for Informational Text

Mastery

- 2.RI 1: Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- 2.RI 2: Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
- 2RI 3: Describe the connection between a series of historical events, scientific ideas or concepts, mathematical ideas or concepts, or steps in technical procedures in a text.
- 2.RI.9: Compare and contrast the most important points presented by two texts on the same topic.

- 2.RI.4: Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
- 2.RI.5: Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
- 2.RI.6: Identify the main purpose of a text, including what the author wants to answer, explain, or describe.
- 2.RI.7: Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- 2.RI.8: Describe how reasons support specific points the author makes in a text.

• 2.RI.10: Independently and proficiently read and comprehend informational texts, including history/social studies, science, mathematical, and technical texts, exhibiting complexity appropriate for at least grade 2.

Reading Standards: Foundational Skills

Mastery

- 2.RF.3: Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Distinguish long and short vowels when reading regularly spelled one-syllable words.
 - \circ $\,$ b. Know spelling-sound correspondences for additional common vowel teams.
 - c. Decode regularly spelled two-syllable words with long vowels.
 - d. Decode words with common prefixes and suffixes.
 - e. Identify words with inconsistent but common spelling-sound correspondences.
 - f. Recognize and read grade-appropriate irregularly spelled words.
- 2.RF.4: Read with sufficient accuracy and fluency to support comprehension.
 - a. Read grade-level text with purpose and understanding.
 - b. Read grade-level text orally with accuracy, appropriate rate, and expression on successive readings.
 - c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing Standards

Mastery

- 2.W.1: Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
- 2.W.3: Write narratives in prose or poem form that recount a well-elaborated event or experience, or a set of events or experiences; include details and dialogue to show actions, thoughts, and feelings; use temporal words to signal event order where appropriate; and provide a sense of closure.
 - a. For poems, use words and phrases that form patterns of sounds (e.g., regular beats, alliteration, end rhymes, repeated sounds in words or lines) to create structure. (See grade 2 Reading Literature standard 4.)

- 2.W.2: Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
- 2.W.4: Produce writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- 2.W.5: With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
 - a. (Begins in grade 3)
 - b. Demonstrate the ability to choose and use appropriate vocabulary (as described in Language standards 4–6 up to and including grade 2).
- 2.W.6: With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

- 2.W.7: Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).
- 2.W.8: Recall information from experiences or gather information from provided sources to answer a question.
- 2.W.10: Write routinely for a range of tasks, purposes, and audiences.

Speaking and Listening Standards

Mastery

- 2.S/L.1: Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
 - a. 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).
 - b. Build on others' talk in conversations by linking their comments to the remarks of others.
 - c. Ask for clarification and further explanation as needed about the topics and texts under discussion.

Exposure

- 2.S/L2: Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
- 2.S/L3: Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
- 2.S/L4: Tell a story, recount an experience, or explain how to solve a mathematical problem with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences and using appropriate vocabulary. (See grade 2 Language standards 4–6 for specific expectations regarding vocabulary.)
- 2.S/L5: Create audio recordings of stories or poems; add drawings or other visual displays to stories or descriptions of experiences when appropriate to clarify ideas, thoughts, and feelings.

Language Skills

Mastery

- 2.L.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. *Sentence Structure and Meaning*
 - a. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences and choose among sentence types depending on the meaning to be conveyed.
 - b. Use adjectives and adverbs in sentences and choose between them depending on what is to be modified.

Word Usage

- c. Use collective nouns and frequently occurring irregular plural nouns.
- d. Use reflexive pronouns.
- e. Form and use the past tense of frequently occurring irregular verbs.
- 2.L.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- a. Print upper- and lowercase letters legibly and fluently.
- b. Capitalize holidays, product names, and geographic names.
- c. Use commas in greetings and closings of letters.
- d. Use an apostrophe to form contractions and frequently occurring possessives.
- e. Generalize learned spelling patterns when writing words (e.g., cage \rightarrow badge; boy \rightarrow boil).
- f. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.
- g. Demonstrate understanding that context determines whether the writer uses a numeral or a written number (e.g., numerals in 1 + 3 = 4, but written words in "When I was one, I was just begun, / When I was two, I was still quite new" from A. A. Milne's poem "Now We Are Six").

- 2.L.3: Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - a. Compare formal and informal uses of English.
- 2.L.4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.
 - a. Use sentence-level context as a clue to the meaning of a word or phrase.
 - b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).
 - c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).
 - d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark).
 - e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.
 - f. Recognize and use appropriately abbreviations related to grade-level content or commonly used in everyday life (e.g., a.m., p.m.).
 - g. Recognize and use appropriately symbols related to grade-level content or commonly used in everyday life (e.g., , ϕ).
- 2.L.5: Demonstrate understanding of word relationships and nuances in word meanings.
 - a. Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).
 - b. Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).
- 2.L.6: Use words and phrases acquired through conversations, activities in the grade 2 curriculum, reading and being read to, and responding to texts, including using adjectives and adverbs to describe. (See grade 2 Reading Literature standard 4 and Reading Informational Text standard 4 on applying knowledge of vocabulary to reading; see grade 2 Writing standard 5 and Speaking and Listening standard 4 on strengthening writing and presentations by applying knowledge of vocabulary.)

Reading Standards for Literature

Mastery

- 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: Retell 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 a text.
- 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: Independently and proficiently read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 3.

Exposure

- 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 figurative language. (See grade 3 Language standards 4–6 on applying knowledge of vocabulary to reading.)
- 3.RL.5: Identify common structural elements of fiction (e.g., problem, solution); describe how each successive part of a text 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).

Reading Standards for Informational Text

Mastery

- 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 9: Compare and contrast the most important points and key details presented in two texts on the same topic.
- 3.RI 10: Independently and proficiently read and comprehend informational texts, including history/social studies, science, mathematical, and technical texts, exhibiting complexity appropriate for at least grade 3.

- 3.RI.3: Describe the relationship between a series of historical events, scientific ideas or concepts, mathematical ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.
- 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.5: Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
- 3.RI.6: Distinguish their own point of view from that of the author of a text.
- 3.RI.7: Use information gained from illustrations (e.g., maps, photographs) and the words, numbers, and symbols 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).

Reading Standards: Foundational Skills

Mastery

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

Exposure

- 3.RF.3: Know and apply grade-level phonics and word analysis skills in decoding words.
 - \circ 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.

Writing Standards

- 3.W.1: Write opinion pieces on topics or texts, supporting an opinion with reasons.
 - a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
 - b. Provide reasons that support the opinion.
 - c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
 - d. Provide a concluding statement or section.
- 3.W.3: Write narratives in prose or poem form to develop experiences or events using effective literary techniques, descriptive details, and clear event sequences.
 - a. Establish a situation and introduce a speaker, narrator, and/or characters; organize an appropriate narrative sequence.
 - b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences or events or show responses to situations.
 - c. Use figurative language to suggest images. (See grade 3 Reading Literature standard.
 - d. Use temporal words and phrases to signal event order where appropriate.
 - e. Provide a sense of closure.
 - f. For poems, use words and phrases that form patterns of sound (e.g., rhyme, repetition of sounds within words or within lines) to create meaning or effect.

• 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.

Exposure

- 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.
- 3.W.4: Produce writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- 3.W.5: Develop and strengthen writing as needed by planning, revising, and editing.
 - a. Demonstrate command of standard English conventions (as described in Language standards 1–3 up to and including grade 3).
 - b. Demonstrate the ability to choose and use appropriate vocabulary (as described in Language standards 4–6 up to and including grade 3).
- 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.W.7: Conduct short research projects that build knowledge about a topic.
- 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.

Speaking and Listening Standards

Mastery

- 3.S/L.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. (See grade 3 Reading Literature standard 1 and Reading Informational Text standard 1 for specific expectations regarding the use of textual evidence).
 - b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
 - c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
 - d. Explain their own ideas and understanding in light of the discussion.

Exposure

• 3.S/L.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.S/L.3: Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- 3.S/L.4: Report on a topic, text, or solution to a mathematical problem, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace and using appropriate vocabulary. (See grade 3 Language standards 4–6 for specific expectations regarding vocabulary.)
- 3.S/L.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.S/L.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.)

Language Skills

Mastery

• 3.L.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 3 Writing standard 5 and Speaking and Listening standard 6 on strengthening writing and presentations by applying knowledge of conventions.)

Sentence Structure and Meaning

- a. Produce, expand, and rearrange complete simple, compound, and complex sentences.
- \circ $\,$ b. Ensure subject-verb and pronoun-antecedent agreement.
- c. Use verbs in the present, past, and future tenses and choose among them depending on the overall meaning of the sentence.
- d. Use coordinating and subordinating conjunctions and choose between them depending on the overall meaning of the sentence.
- e. Form and use comparative and superlative adjectives and adverbs and choose between them depending on what is to be modified and the overall meaning of the sentence.

Word Usage

- f. Use abstract nouns.
- g. Form and use regular and irregular plural nouns and the past tense of regular and irregular verbs.
- 3.L.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Write legibly and fluently by hand, using either printing or cursive handwriting.
 - b. Capitalize appropriate words in titles.
 - c. Use commas in addresses.
 - d. Use commas and quotation marks in dialogue.
 - e. Form and use possessives.
 - f. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, happiness).
 - g. Demonstrate understanding that numerals used at the beginning of a sentence are written as words and capitalized (e.g., "Three pandas could be seen eating leaves high in the bamboo grove").

- h. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.
- i. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

- 3.L.3: Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - \circ $\,$ a. Choose words and phrases for effect.
 - b. Recognize and observe differences between the conventions of spoken and written English.
- 3.L.4: Language Standard 4 Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
 - a. Use sentence-level context as a clue to the meaning of a word or phrase.
 - b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat).
 - c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., company, companion).
 - d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.
 - e. Recognize and use appropriately abbreviations related to grade-level content or common in everyday life (e.g., N, S, E, W on a map).
 - f. Recognize and use appropriately symbols related to grade-level content or common in everyday life (e.g., <, >).
- 3.L.5: With guidance and support from adults, explore word relationships and nuances in word meanings.
 - a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.
 - b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).
 - c. Identify real-life connections between words and their use (e.g., note places at school that are colorful).
 - d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings.
- 3.L.6: Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (See grade 3 Reading Literature standard 4 and Reading Informational Text standard 4 on applying knowledge of vocabulary to reading; see grade 3 Writing standard 5 and Speaking and Listening standard 4 on strengthening writing and presentations by applying knowledge of vocabulary.)

Reading Standards for Literature

Mastery

- 4.RL.1: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- 4.RL.2: Determine a theme of a story, drama, or poem from details in the text; summarize the text.
- 4.RL.9: Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.
- 4.RL.10: Independently and proficiently read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 4.

Exposure

- 4.RL.3: Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).
- 4.RL.4: Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean); explain how figurative language (e.g., simile, metaphor) enriches a text. (See grade 4 Language standards 4–6 on applying knowledge of vocabulary to reading.)
- 4.RL.5: Explain major differences among prose, poetry, and drama and refer to the structural elements of each (e.g., paragraphs and chapters for prose; stanza and verse for poetry; scene, stage directions, cast of characters for drama) when writing or speaking about a text.
- 4.RL.6: Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.
- 4.RL.7: Make connections between a written story or drama and its visual or oral presentation, identifying where the presentation reflects specific descriptions and directions in the written text.

Reading Standards for Informational Text

Mastery

- 4.RI 1: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- 4.RI 2: Determine the main idea of a text and explain how it is supported by key details; summarize the text.
- 4.RI 9: Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
- 4.RI 10: Independently and proficiently read and comprehend informational texts, including history/social studies, science, mathematical, and technical texts, exhibiting complexity appropriate for at least grade 4.

- 4.RI.3: Explain events, procedures, ideas, or concepts in a historical, scientific, mathematical, or technical text, including what happened and why, based on specific information in the text.
- 4.RI.4: Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
- 4.RI.5: Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
- 4.RI.6: Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
- 4.RI.7: Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
- 4.RI.8: Explain how an author uses reasons and evidence to support particular points in a text.

Reading Standards: Foundational Skills

Mastery

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

Exposure

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

Writing Standards

- 4.W.1: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
 - a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped in paragraphs and sections to support the writer's purpose.
 - b. Provide reasons that are supported by facts and details.
 - c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).
 - d. Provide a concluding statement or section related to the opinion presented.
- 4.W.9: Draw evidence from literary or informational texts to support written analysis, reflection, and research, applying one or more grade 4 standards for Reading Literature or Reading Informational Text as needed.
- 4.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.

- 4.W.2: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
 - a. Introduce a topic clearly and group related information in paragraphs and sections; include text features (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
 - b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
 - c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - e. Provide a concluding statement or section related to the information or explanation presented.
- 4.W.3: Write narratives in prose or poem form to develop experiences or events using effective literary techniques, descriptive details, and clear sequences.
 - a. Orient the reader by establishing a situation and introducing a speaker, narrator, and/or characters; organize an appropriate narrative sequence.
 - b. Use dialogue and description to develop experiences or events or show responses to situations.
 - c. Use a variety of transitional words and phrases to manage sequences.
 - d. Use concrete words and phrases, figurative language such as similes and metaphors, and sensory details to convey experiences or events precisely.
 - e. Provide a sense of closure appropriate to the narrated experiences or events.
 - f. For poems, use patterns of sound (e.g., rhyme, rhythm, alliteration, consonance) and visual patterns (e.g., line length, grouped lines as stanzas or verses) to create works that are distinctly different in form from prose narratives. (See grade 4 Reading Literature standard 5.)
- 4.W.4: Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types as defined in Writing Standards 1–3.)
- 4.W.5: Develop and strengthen writing as needed by planning, revising, and editing.
 - a. Demonstrate command of standard English conventions (as described in Language standards 1–3 up to and including grade 4).
 - b. Demonstrate the ability to use general academic and domain-specific vocabulary appropriately (as described in Language standards 4–6 up to and including grade 4).
- 4.W.6: Use technology, including current Web-based communication platforms, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.
- 4.W.7: Conduct short research projects that build knowledge through investigation of different aspects of a topic.
- 4.W.8: Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.

Speaking and Listening Standards

Mastery

- 4.S/L.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. (See grade 4 Reading Literature standard 1 and Reading Informational Text standard 1 for specific expectations regarding the use of textual evidence.)
 - $\circ~$ b. Follow agreed-upon rules for discussions and carry out assigned roles.
 - c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
 - d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

Exposure

- 4.S/L.2: Paraphrase portions of a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- 4.S/L.3: Identify the reasons and evidence a speaker provides to support particular points.
- 4.S/L.4: Report on a topic, text, procedure, or solution to a mathematical problem, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace and use appropriate vocabulary. (See grade 4 Language standards 4–6 for specific expectations regarding vocabulary.)
- 4.S/L.5: Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
- 4.S/L.6: Differentiate between contexts that call for formal English (e.g., presenting research findings) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 and 3 for specific expectations.)

Language Skills

- 4.L.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 4 Writing standard 5 and Speaking and Listening standard 6 on strengthening writing and presentations by applying knowledge of conventions.) *Sentence Structure and Meaning*
 - a. Produce complete sentences, using knowledge of subject and predicate to recognize and correct inappropriate sentence fragments and run-on sentences.
 - b. Correctly use frequently confused words (e.g., their/there).
 - c. Use helping verbs, also known as auxiliaries (e.g., can, may, might, should), to convey various conditions of possibility, likelihood, obligation, or permission, choosing among helping verbs depending on the overall meaning of the sentence.

- d. Use relative pronouns and relative adverbs to add more information about a noun or verb used in a sentence.
- e. Form and use prepositional phrases in sentences to add more information about qualities such as location, time, agency, and direction.

Word Usage

- f. Form and use progressive verb tenses.
- 4.L.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Write legibly and fluently by hand, using either printing or cursive handwriting; write their given name signature in cursive.
 - b. Use correct capitalization.
 - c. Use commas and quotation marks to mark direct speech and quotations from a text.
 - d. Use a comma before a coordinating conjunction in a compound sentence.
 - e. Spell grade-appropriate words correctly, consulting references as needed.

- 4.L.3: Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - a. Choose words and phrases to convey ideas precisely.
 - b. Choose punctuation for effect.
 - c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).
- 4.L.4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.
 - a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
 - b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph).
 - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of keywords and phrases.
 - d. Recognize and use appropriately abbreviations related to grade-level content or common in everyday life (e.g., hr., min., sec.).
 - e. Recognize and use appropriately symbols related to grade-level content or common in everyday life (e.g., &, #, *).
- 4.L.5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - a. Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context.
 - b. Recognize and explain the meaning of common idioms, adages, and proverbs.
 - c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).
- 4.L.6: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation,

and endangered when discussing animal preservation). (See grade 4 Reading Literature standard 4 and Reading Informational Text standard 4 on applying knowledge of vocabulary to reading; see grade 4 Writing standard 5 and Speaking and Listening standard 4 on strengthening writing and presentations by applying knowledge of vocabulary.)

Reading Standards for Literature

Mastery

- 5.RL.1: Quote or paraphrase a text accurately when explaining what the text states explicitly and when drawing inferences from the text. (See grade 5 Writing standard 8 for more on paraphrasing.)
- 5.RL.2: Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
- 5.RL.6: Describe how a narrator's or speaker's point of view influences how events are described in a story, myth, poem, or drama.
- 5.RL.9: Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.
- 5.RL.10: By the end of the year, read and comprehend literature,(including stories, dramas, and poetry), at the high end of the grades 4–5 text complexity band independently and proficiently.

Exposure

- 5.RL.3: Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
- 5.RL.4: Determine the meaning of words and phrases as they are used in a text; identify and explain the effects of figurative language such as metaphors and similes. (See grade 5 Language standards 4–6 on applying knowledge of vocabulary to reading.)
- 5.RL.5: Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
- 5.RL.7: Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).

Reading Standards for Informational Text

Mastery

- 5.RI.1: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- 5.RI.2: Determine one or more main ideas of a text and explain how they are supported by key details; summarize a text.
- 5.RI.9: Integrate information from several texts on the same topic in order to write or speak about a subject knowledgeably.
- 5.RI.10: Independently and proficiently read and comprehend informational texts, including history/social studies, science, mathematical, and technical texts, exhibiting complexity appropriate for at least grade 5.

Exposure

• 5.RI.3: Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, mathematical, or technical texts based on specific information in the text.

- 5.RI.4: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
- 5.RI.5: Describe how an author uses one or more structures (e.g., chronology, comparison, cause/effect, problem/solution) to present information in a text.
- 5.RI.6: Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
- 5.RI.7: Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
- 5.RI.8: Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).

Reading Standards: Foundational Skills

Mastery

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

Exposure

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

Writing Standards

Mastery

- 5.W.1: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
 - a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped in paragraphs and sections to support the writer's purpose.
 - b. Provide logically ordered reasons that are supported by facts and details.
 - c. Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).
 - d. Provide a concluding statement or section related to the opinion presented.
- 5.W.9: Draw evidence from literary or informational texts to support written analysis, reflection, and research, applying one or more grade 5 standards for Reading Literature or Reading Informational Text as needed.
- 5.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.

Exposure

• 5.W.2: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- a. Introduce a topic clearly, provide a general observation and focus, and group related information logically in paragraphs and sections; include text features (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).
- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e. Provide a concluding statement or section related to the information or explanation presented.
- 5.W.3: Write narratives in prose or poem form to develop experiences or events using effective literary techniques, descriptive details, and clear sequences.
 - a. Orient the reader by establishing a situation and introducing a speaker, narrator, and/or characters; organize an appropriate narrative sequence.
 - b. Use narrative techniques such as dialogue, description, and pacing to develop experiences or events or show responses to situations.
 - c. Use a variety of transitional words, phrases, and clauses to manage sequences.
 - d. Use concrete words and phrases and sensory details to convey experiences or events precisely.
 - e. Provide a sense of closure appropriate to the narrated experiences or events.
 - f. For prose narratives, draw on characteristics of traditional or modern genres (e.g., tall tales, myths, mysteries, fantasies, historical fiction) from diverse cultures as models for writing. (See grade 5 Reading Literature standard 9.)
 - g. For poems, draw on characteristics of traditional poetic forms (e.g., ballads, couplets) or modern free verse from diverse cultures as models for writing.
- 5.W.4: Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Writing Standards 1–3.)
- 5.W.5: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
 - a. Demonstrate command of standard English conventions (as described in Language standards 1–3 up to and including grade 5).
 - b. Demonstrate the ability to use general academic and domain-specific vocabulary appropriately (as described in Language standards 4–6 up to and including grade 5).
- 5.W.6: Use technology, including current Web-based communication platforms, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.
- 5.W.7: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
- 5.W.8: Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.

Speaking and Listening Standards

Mastery

- 5.S/L.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. (See grade 5 Reading Literature standard 1 and Reading Informational Text standard 1 for specific expectations regarding the use of textual evidence.)
 - b. Follow agreed-upon rules for discussions and carry out assigned roles.
 - c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
 - d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

Exposure

- 5.S/L.2: Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- 5.S/L.3: Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.
- 5.S/L.4: 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. (See grade 5 Reading Literature standard 1 and Reading Informational Text standard 1 for specific expectations regarding the use of textual evidence.)
- 5.S/L.5: Include multimedia components and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
- 5.S/L.6: Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language Standards 1 and 3 for specific expectations.)

Language Skills

Mastery

- 5.L.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 5 Writing standard 5 and Speaking and Listening standard 6 on strengthening writing and presentations by applying knowledge of conventions.) *Sentence Structure and Meaning*
 - a. Use verb tense to convey various times, sequences, states, and conditions, choosing among verb tenses depending on the overall meaning of the sentence.
 - b. Recognize and correct inappropriate shifts in verb tense.
 - c. Use active and passive verbs, choosing between them depending on the overall meaning of the sentence.

Word Usage

- d. Form and use perfect verb tenses.
- 5.L.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- a. Write legibly and fluently by hand, using either print or cursive handwriting; write their given and family name signature in cursive.
- b. Use punctuation to separate items in a series .
- c. Use a comma to separate an introductory element from the rest of the sentence.
- d. Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?).
- e. Use underlining, quotation marks, or italics to indicate titles of works.
- f. Spell grade-appropriate words correctly, consulting references as needed.

- 5.L.3: Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
 - b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.
- 5.L.4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.
 - a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
 - b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis).
 - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of keywords and phrases.
 - d. Recognize and use appropriately abbreviations related to grade-level content or common in everyday life, including abbreviations derived from words or phrases in other languages (e.g., lb., oz., etc.).
 - e. Recognize and use appropriately symbols related to grade-level content or common in everyday life, including symbols with multiple meanings (e.g., parentheses in mathematics and in writing, ° to measure angles and temperature).
- 5.L.5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - a. Interpret figurative language, including similes and metaphors, in context.
 - b. Recognize and explain the meaning of common idioms, adages, and proverbs.
 - c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
- 5.L.6: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition). (See grade 5 Reading Literature standard 4 and Reading Informational Text standard 4 on applying knowledge of vocabulary to reading; see grade 5 Writing standard 5 and Speaking and Listening standard 4 on strengthening writing and presentations by applying knowledge of vocabulary.)

Reading Standards for Literature

Mastery

- 6.RL.1: Cite textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text, quoting or paraphrasing as appropriate. (See grade 6 Writing standard 8 for more on quoting and paraphrasing.)
- 6.RL.2: Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
- 6.RL.6: Explain how an author develops the point of view of the narrator or speaker in a text.
- 6.RL.10: Independently and proficiently read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 6.

Exposure

- 6.RL.3: Describe how the plot of a particular story, poem, or drama unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.
- 6.RL.4: Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices, including those that create repeated sounds and rhythms in poetry, on meaning, tone (i.e., author's attitude toward subject or audience), or mood (i.e., emotional atmosphere). (See grade 6 Language standards 4–6 on applying knowledge of vocabulary to reading.)
- 6.RL.5: Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
- 6.RL.7: Compare and contrast the experience of reading a story, drama, or poem to that of listening to or viewing the same text.

Reading Standards for Informational Text

Mastery

- 6.RI.1: Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- 6.RI.2: Determine a text's central idea(s) and how particular details help convey the idea(s); provide a summary of the text distinct from personal opinions or judgments.
- 6.RI.6: Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.
- 6.RI.10: Independently and proficiently read and comprehend literary nonfiction representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 6.

Exposure

• 6.RI.3: Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

- 6.RI.4: Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; explain how word choice affects meaning and tone. (See grade 6 Language standards 4–6 on applying knowledge of vocabulary to reading.)
- 6.RI.5: Analyze how a particular sentence, paragraph, chapter, section, or text feature (e.g., heading) fits into the overall structure of a text and contributes to the development of the ideas.
- 6.RI.7: Integrate information presented in different media or formats (e.g., in charts, graphs, photographs, videos, or maps) as well as in words to develop a coherent understanding of a topic or issue.
- 6.RI.8: Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.

Writing Standards

Mastery

- 6.W.1: Write arguments (e.g., essays, letters to the editor, advocacy speeches) to support claims with clear reasons and relevant evidence.
 - a. Introduce claim(s) and organize the reasons and evidence clearly in paragraphs and sections.
 - b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
 - c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.
 - d. Establish and maintain a style appropriate to audience and purpose (e.g., formal for academic writing).
 - e. Provide a concluding statement or section that follows from the argument presented.
- 6.W.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Writing Standards 1–3.)
- 6.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 tasks, purposes, and audiences.

- 6.W.2: Write informative/explanatory texts (e.g., essays, oral reports, biographical feature articles) to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
 - a. Introduce a topic; organize ideas, concepts, and information in paragraphs and sections, using strategies such as definition, classification, comparison/contrast, and cause/effect; include text features (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
 - b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
 - c. Use appropriate transitions to clarify the relationships among ideas and concepts.
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

- e. Establish and maintain a style appropriate to audience and purpose (e.g., formal for academic writing).
- f. Provide a concluding statement or section that follows from the information or explanation presented.
- 6.W.3: Write narratives to develop experiences or events using effective literary techniques, relevant descriptive details, and well-structured sequences.
 - a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an appropriate narrative sequence.
 - b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
 - c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
 - d. Use precise words and phrases, relevant descriptive details, figurative and sensory language, and techniques such as personification (e.g., "the fog crept in") to convey experiences or events.
 - e. Provide a conclusion that follows from the narrated experiences or events.
- 6.W.5: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
 - a. Demonstrate command of standard English conventions (as described in Language standards 1–3 up to and including grade 6).
 - b. Demonstrate the ability to select accurate vocabulary (as described in Language standards 4–6 up to and including grade 6).
- 6.W.6: Use technology, including current Web-based communication platforms, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.
- 6.W.7: Conduct short as well as more sustained research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
- 6.W.8: When conducting research, gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.
- 6.W.9: Draw evidence from literary or informational texts to support written analysis, interpretation, reflection, and research, applying one or more grade 6 standards for Reading Literature or Reading Informational Text as needed.

Speaking and Listening Standards

- 6.S/L.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. (See grade 6 Reading Literature standard 1 and Reading Informational Text standard 1 for specific expectations regarding the use of textual evidence.)

- b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
- c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
- d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.
- 6.S/L.4: Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate vocabulary, eye contact, volume, and pronunciation. (See grade 6 Language standards 4–6 for specific expectations regarding vocabulary.)

- 6.S/L.2: Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
- 6.S/L.3: Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
- 6.S/L.5: Interpret information presented in diverse media and formats and explain how it contributes to a topic, text, or issue under study.
- 6.S/L.6: Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 6 Language standards 1 and 3 for specific expectations.)

Language Skills

Mastery

• 6.L.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 6 Writing standard 5 and Speaking and Listening standard 6 on strengthening writing and presentations by applying knowledge of conventions.)

Sentence Structure, Variety, and Meaning

- a. Use simple, compound, complex, and compound-complex sentences to communicate ideas clearly and to add variety to writing.
- b. Explain the function of phrases and clauses in general, how phrases and clauses differ, and how their use conveys a particular meaning in a specific written or spoken sentence.
- c. Place or rearrange phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.
- 6.L.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.
 - b. Spell correctly, recognizing that some words have commonly accepted variations (e.g., donut/doughnut).

Exposure

• 6.L.3: Use knowledge of language and its conventions when writing, speaking, reading, or listening.

- a. Maintain appropriate consistency in style and tone while varying sentence patterns for meaning and audience interest.
- b. Recognize variations from standard or formal English in writing and speaking, determine their appropriateness for the intended purpose and audience, and make changes as necessary.
- 6.L.4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.
 - a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
 - b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., audience, auditory, audible).
 - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
 - d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
- 6.L.5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - a. Interpret figures of speech (e.g., personification) in context.
 - b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.
 - c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., stingy, scrimping, economical, unwasteful, thrifty).
- 6.L.6: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; independently research words and gather vocabulary knowledge. (See grade 6 Reading Literature standard 4 and Reading Informational Text standard 4 on applying knowledge of vocabulary to reading; see grade 6 Writing standard 5 and Speaking and Listening standard 4 on strengthening writing and presentations by applying knowledge of vocabulary.)

Reading Standards for Literature

Mastery

- 7.RL.1: Cite several pieces of textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text, quoting or paraphrasing as appropriate. (See grade 7 Writing standard 8 for more on quoting and paraphrasing.)
- 7.RL.2: Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.
- 7.RL.3: Describe how particular elements of a story, poem, or drama interact (e.g., how setting shapes the characters or plot).
- 7.RL.6: Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.
- 7.RL.10: Independently and proficiently read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 7.

Exposure

- 7.RL.4: Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning, tone, or mood, including the impact of repeated use of particular images. (See grade 7 Language standards 4–6 on applying knowledge of vocabulary to reading.)
- 7.RL.5: Analyze how aspects of a literary work's structure contribute to its meaning or style (e.g., the effect of repetition in an epic, a flashback in a novel, or a soliloquy in a drama).
- 7.RL.7: Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version.
- 7.RL.9: Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.

Reading Standards for Informational Text

- 7.RI.1: Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- 7.RI.2: Determine a text's central idea(s) and analyze its/their development over the course of the text; provide an objective summary of a text.
- 7.RI.3: Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).
- 7.RI.6: Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.
- 7RI.10: Independently and proficiently read and comprehend literary nonfiction representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 7.

Exposure

- 7.RI.4: Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.
- 7.RI.5: Analyze the structure an author uses to organize a text, including how the major sections and text features (e.g., headings) contribute to the whole and to the development of the ideas.
- 7.RI.7: Compare and contrast a written text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).
- 7.RI.8: Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.
- 7.RI.9: Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.

Writing Standards

Mastery

- 7.W.1: Write arguments (e.g., essays, letters to the editor, advocacy speeches) to support claims with clear reasons and relevant evidence.
 - a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically in paragraphs and sections.
 - b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
 - c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.
 - d. Establish and maintain a style appropriate to audience and purpose (e.g., formal for academic writing).
 - e. Provide a concluding statement or section that follows from and supports the argument presented.
- 7.W.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Writing Standards 1–3.
- 7.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.

- 7.W.2: Write informative/explanatory texts (e.g., essays, oral reports, biographical feature articles) to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
 - a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information in paragraphs and sections, using strategies such as definition, classification, comparison/contrast, and cause/effect; include text features (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

- b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
- c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.
- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e. Establish and maintain a style appropriate to audience and purpose (e.g., formal for academic writing).
- f. Provide a concluding statement or section that follows from and supports the information or explanation presented.
- 7.W.3: Write narratives to develop experiences or events using effective literary techniques, relevant descriptive details, and well-structured sequences.
 - a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an appropriate narrative sequence.
 - b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
 - c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
 - d. Use precise words and phrases, relevant descriptive details, and figurative and sensory language to establish a mood that evokes an emotion, to capture action, and to convey experiences or events.
 - e. Provide a conclusion that follows from and reflects on the narrated experiences or events.
- 7.W.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Writing Standards 1–3.)
- 7.W.5: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
 - a. Demonstrate command of standard English conventions (as described in Language standards 1–3 up to and including grade 7).
 - b. Demonstrate the ability to select accurate vocabulary (as described in Language standards 4–6 up to and including grade 7).
- 7.W.6: Use technology, including current Web-based communication platforms, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.
- 7.W.7: Conduct short as well as more sustained research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.
- 7.W.8: When conducting research, gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

• 7.W.9: Draw evidence from literary or informational texts to support written analysis, interpretation, reflection, and research, applying one or more grade 7 standards for Reading Literature or Reading Informational Text as needed.

Speaking and Listening Standards

Mastery

- 7.S/L.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. (See grade 7 Reading Literature standard 1 and Reading Informational Text standard 1 for specific expectations regarding the use of textual evidence.)
 - b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.
 - c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.
 - d. Acknowledge new information expressed by others and, when warranted, modify their own views.
- 7.S/L.4: Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate vocabulary, eye contact, adequate volume, and clear pronunciation. (See grade 7 Language standards 4–6 for specific expectations regarding vocabulary.)

- 7.S/L.2: Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.
- 7.S/L.3: Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.
- 7.S/L.5: Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.
- 7.S/L.6: Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 7 Language Standards 1 and 3 for specific expectations.)

Language Skills

Mastery

• 7.L.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 7 Writing standard 5 and Speaking and Listening standard 6 on strengthening writing and presentations by applying knowledge of conventions.)

Sentence Structure, Variety, and Meaning

- a. Use phrases and clauses to communicate ideas precisely, with attention to skillful use of verb tenses to add clarity.
- b. Recognize and correct vague pronouns (those that have unclear or ambiguous antecedents).
- c. Recognize and correct inappropriate shifts in pronoun number and person in sentences with multiple clauses and phrases.
- d. Recognize that changing the placement of a phrase or clause can add variety, emphasize particular relationships among ideas, or alter the meaning of a sentence or paragraph.
- 7.L.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Use a comma to separate coordinate adjectives (e.g., a fascinating, enjoyable movie).
 - b. Spell correctly, recognizing that some words have commonly accepted variations (e.g., donut/doughnut).

- 7.L.3: Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - a. Maintain appropriate consistency in style and tone while varying sentence patterns for meaning and audience interest.
 - b. Recognize variations from standard or formal English in writing and speaking, determine their appropriateness for the intended purpose and audience, and make changes as necessary.
- 7.L.4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.
 - a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
 - b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel).
 - c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
 - d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
- 7.L.5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.

- b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.
- c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending).
- 7.L.6: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; independently research words and gather vocabulary knowledge. (See grade 7 Reading Literature standard 4 and Reading Informational Text standard 4 on applying knowledge of vocabulary to reading; see grade 7 Writing standard 5 and Speaking and Listening standard 4 on strengthening writing and presentations by applying knowledge of vocabulary.)

WRSD Priority Language Arts Standards - Grade 8

Reading Standards for Literature

Mastery

- 8.RL.1: Cite the textual evidence that most strongly supports analysis of what a text states explicitly as well as inferences drawn from the text, quoting or paraphrasing as appropriate. (See grade 8 Writing standard 8 for more on quoting and paraphrasing.)
- 8.RL.2: Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.
- 8.RL.4: Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning, tone, or mood, including the use of allusion and irony. (See grade 8 Language standards 4–6 on applying knowledge of vocabulary to reading.)
- 8.RL.6: Analyze how differences in point of view between characters and audience (e.g., created through the use of dramatic irony) create such effects as suspense or humor.
- 8.RL.10: Independently and proficiently read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 8.

Exposure

- 8.RL.3: Analyze how particular lines of dialogue or incidents in a story, poem, or drama propel the action, reveal aspects of a character, or provoke a decision.
- 8.RL.5: Compare and contrast the structures of two or more texts, analyzing how structure contributes to meaning and style in each text.
- 8.RL.7: Analyze the extent to which an audio, filmed, or staged production of a story, drama, or poem stays faithful to or departs from the original, evaluating the choices made by the director or performer(s).
- 8.RL.9: Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.

Reading Standards for Informational Text

Mastery

- 8.RI.1: Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
- 8.RI.2: Determine a text's central idea(s) and analyze its/their development over the course of the text, including relationships to supporting ideas; provide an objective summary of a text.
- 8.RI.4: Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
- 8.RI.6: Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.

• 8.RI.10: Independently and proficiently read and comprehend literary nonfiction representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 8.

Exposure

- 8.RI.3: Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).
- 8.RI.5: Analyze in detail the structural elements of a text, including the role of specific sentences, paragraphs, and text features in developing and refining a key concept.
- 8.RI.7: Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
- 8.RI.8: Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
- 8.RI.9: Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.

Writing Standards

Mastery

- 8.W.1: Write arguments (e.g., essays, letters to the editor, advocacy speeches) to support claims with clear reasons and relevant evidence.
 - a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically in paragraphs and sections.
 - b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
 - c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
 - d. Establish and maintain a style appropriate to audience and purpose (e.g., formal for academic writing).
 - e. Provide a concluding statement or section that follows from and supports the argument presented.
- 8.W.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Writing Standards 1–3.)
- 8.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.

- 8.W.2: Write informative/explanatory texts (e.g., essays, oral reports, biographical feature articles) to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
 - a. Introduce a topic clearly, previewing what is to follow; use paragraphs and sections to organize ideas, concepts, and information into broader categories; include text features

(e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

- b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
- c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e. Establish and maintain a style appropriate to audience and purpose (e.g., formal for academic writing).
- f. Provide a concluding statement or section that follows from and supports the information or explanation presented.
- 8.W.3: Write narratives to develop experiences or events using effective literary techniques, relevant descriptive details, and well-structured sequences.
 - a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an appropriate narrative sequence.
 - b. Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters.
 - c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events.
 - d. Use precise words and phrases and relevant descriptive details to convey a tone (the writer's attitude toward the subject: e.g., humorous, serious, or ironic) and to convey experiences or events.
 - e. Provide a conclusion that follows from and reflects on the narrated experiences or events.
- 8.W.5: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
 - a. Demonstrate command of standard English conventions (as described in Language standards 1–3 up to and including grade 8).
 - b. Demonstrate the ability to select accurate vocabulary (as described in Language standards 4–6 up to and including grade 8).
- 8.W.6: Use technology, including current Web-based communication platforms, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.
- 8.W.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
- 8.W.8: When conducting research, gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

• 8.W.9: Draw evidence from literary or informational texts to support written analysis, interpretation, reflection, and research, applying one or more grade 8 standards for Reading Literature or Reading Informational Text as needed.

Speaking and Listening Standards

Mastery

- 8.S/L.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. (See grade 8 Reading Literature standard 1 and Reading Informational Text standard 1 for specific expectations regarding the use of textual evidence.)
 - b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.
 - c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.
 - d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.
- 8.SL.4: Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate vocabulary, eye contact, volume, and pronunciation. (See grade 8 Language standards 4–6 for specific expectations regarding vocabulary.)

Exposure

- 8.S/L.2: Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.
- 8.S/L.3: Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.
- 8.S/L.5: Integrate multimedia components and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.
- 8.S/L.6: Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 8 Language Standards 1 and 3 on for specific expectations.)

Language Skills

Mastery

• 8.L.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 8 Writing standard 5 and Speaking and Listening standard 6 on strengthening writing and presentations by applying knowledge of conventions.)

Sentence Structure, Variety, and Meaning

- a. Coordinate phrases and clauses in simple, compound, complex, and compound-complex sentences, with emphasis on agreement of pronouns and their antecedents.
- b. Form and use verbs in the active and passive voices and the indicative, imperative, interrogative, conditional, and subjunctive moods to communicate a particular meaning.
- 8.L.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Use punctuation (comma, ellipsis, dash) to indicate a pause or break.
 - \circ $\,$ b. Use an ellipsis to indicate an omission.
 - c. Spell correctly, recognizing that some words have commonly accepted variations (e.g., donut/doughnut).

- 8.L.3: Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - a. Maintain appropriate consistency in style and tone while varying sentence patterns for meaning and audience interest.
 - b. Recognize variations from standard or formal English in writing and speaking, determine their appropriateness for the intended purpose and audience, and make changes as necessary.
- 8.L.4: Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.
 - a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
 - b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede).
 - c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
 - d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary)
- 8.L.5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - a. Interpret figures of speech (e.g. verbal irony, puns) in context.
 - b. Use the relationship between particular words to better understand each of the words.
 - c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., bullheaded, willful, firm, persistent, resolute).
- 8.L.6: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; independently research words and gather vocabulary knowledge. (See grade 8 Reading Literature standard 4 and Reading Informational Text standard 4 on applying knowledge of vocabulary to reading; see grade 8 Writing standard 5 and Speaking and Listening standard 4 on strengthening writing and presentations by applying knowledge of vocabulary.)

WRSD Priority Mathematics Standards - Kindergarten

Counting and Cardinality

Mastery

- **K.CC.1** Count to 100 by ones and by tens.
- **K.CC.4** Understand the relationship between numbers and quantities; connect counting to cardinality.
 - a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

K.CC

- b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
- c. Understand that each successive number name refers to a quantity that is one larger.
 Recognize the one more pattern of counting using objects.
- **K.CC.5** Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
- **K.CC.6** Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.

Exposure

- **K.CC.2** Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- **K.CC.3** Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).
- K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.

Operations and Algebraic Thinking	K.OA
Mastery	

• **K.OA.5** Fluently add and subtract within 5.

- **K.OA.1** Represent addition and subtraction with objects, fingers, mental images, drawings[1], sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
- **K.OA.2** Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- **K.OA.3** Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).
- **K.OA.4** For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

Numbers and Operations in Base Ten

Exposure

• **K.NBT.1** Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Measurement and Data

Mastery

• **K.MD.3** Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Exposure

- **K.MD.1** Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
- **K.MD.2** Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*

Geometry

Mastery

- **K.G.1** Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.
- **K.G.4** Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).
- **K.G.6** Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*

Exposure

- K.G.2 Correctly name shapes regardless of their orientations or overall size.
- **K.G.3** Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").
- **K.G.5** Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

K.NBT

K.MD

K.G

Operations and Algebraic Thinking

1.OA

Mastery

- **1.OA.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations (number sentences) with a symbol for the unknown number to represent the problem.
- **1.OA.5** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- 1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use mental strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 4 = 13 3 1 = 10 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Exposure

- **1.OA.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 1.OA.3 Apply properties of operations as strategies to add and subtract.^[1] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)*
- **1.OA.4** Understand subtraction as an unknown-addend problem. *For example, subtract 10 8 by finding the number that makes 10 when added to 8.*
- **1.OA.7** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.
- **1.OA.8** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations* 8 + ? = 11, 5 = -3, 6 + 6 = •.
- **1.OA.MA.9** Write and solve number sentences from problem situations that express relationships involving addition and subtraction within 20.

Numbers and Operations in Base Ten

1.NBT

Mastery

- **1.NBT.2** Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
 - a. 10 can be thought of as a bundle of ten ones—called a "ten."
 - b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
 - c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

- **1.NBT.4** Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
- **1.NBT.6** Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Exposure

- **1.NBT.1** Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
- **1.NBT.3** Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.
- **1.NBT.5** Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. Identify arithmetic patterns of 10 more and 10 less than using strategies based on place value.

Measurement and Data

1.MD

Mastery

- **1.MD.1** Order three objects by length; compare the lengths of two objects indirectly by using a third object.
- **1.MD.2** Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

- **1.MD.3** Tell and write time in hours and half-hours using analog and digital clocks.
- **1.MD.4** Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
- **1.MD.MA.5** Identify the values of all U.S. coins and know their comparative values (e.g., a dime is of greater value than a nickel). Find equivalent values (e.g., a nickel is equivalent to five pennies). Use appropriate notation (e.g., 69¢). Use the values of coins in the solutions of problems (up to 100¢).

Geometry

Mastery

- **1.G.1** Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes that possess defining attributes.
- **1.G.2** Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Exposure

• **1.G.3** Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths*, and *quarters*, and use the phrases *half of, fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Operations and Algebraic Thinking

Mastery

- **2.OA.1** Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- **2.OA.2** Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two single-digit numbers and related differences.

Exposure

- **2.OA.MA.2.a** By the end of grade 2, know from memory related subtraction facts of sums of two one-digit numbers.
- **2.OA.3** Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
- **2.OA.4** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

Numbers and Operations in Base Ten

2.NBT

2.OA

Mastery

- **2.NBT.1** Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
 - a. 100 can be thought of as a bundle of ten tens—called a "hundred."
 - b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
- **2.NBT.5** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **2.NBT.7** Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- **2.NBT.8** Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

- **2.NBT.2** Count within 1,000; skip-count by 5s, 10s, and 100s. Identify patterns in skip counting starting at any number.
- **2.NBT.3** Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- **2.NBT.4** Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

- **2.NBT.6** Add up to four two-digit numbers using strategies based on place value and properties of operations.
- **2.NBT.9** Explain why addition and subtraction strategies work, using place value and the properties of operations.

Measurement and Data

Mastery

- **2.MD.1** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- **2.MD.4** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Exposure

- **2.MD.2** Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
- **2.MD.3** Estimate lengths using units of inches, feet, centimeters, and meters.
- **2.MD.5** Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
- **2.MD.6** Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.
- **2.MD.7** Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
 - a. Know the relationships of time, including seconds in a minute, minutes in an hour, hours in a day, days in a week; days in a month and a year and approximate number of weeks in a month and weeks in a year.
- **2.MD.8** Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies (up to \$10), using \$ and ¢ symbols appropriately and whole dollar amounts.
- **2.MD.9** Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Organize and record the data on a line plot (dot plot) where the horizontal scale is marked off in whole-number units.
- **2.MD.10** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems,[1] using information presented in a bar graph.

2.MD

Geometry

Mastery

- 2.G.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.[1] Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- 2.G.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Exposure

• **2.G.2** Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

Operations and Algebraic Thinking

3.OA

Mastery

- **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.OA.7** Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \cdot 5 = 40$, one knows $40 \cdot 5 = 8$) 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.

Exposure

- **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. For example, describe a context in which a total number of objects can be expressed as 5 ´7.
- **3.OA.2** Interpret whole-number quotients of whole numbers, e.g., interpret 56, 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*, 8.
- **3.OA.4** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations* 8'? = 48, 5 = 0, 3, 6'6 = ?.
- 3.OA.5 Apply properties of operations to multiply. For example: When multiplying numbers order does not matter. If 6 4 = 24 is known, then 4 6 = 24 is also known (Commutative property of multiplication); The product 3 5 2 can be found by 3 5 = 15 then 15 2 = 30, or by 5 2 = 10 then 3 10 = 30 (Associative property of multiplication); When multiplying two numbers either number can be decomposed and multiplied; one can find 8 x 7 by knowing that 7 = 5 + 2 and that 8 5 = 40 and 8 2 = 16, resulting in 8 (5 + 2) = (8 5) + (8 2) = 40 + 16 = 56 (Distributive property); When a number is multiplied by 1 the result is the same number (Identity property of 1 for multiplication).
- **3.OA.6** Understand division as an unknown-factor problem. *For example, find 32*, 8 by finding the number that makes 32 when multiplied by 8.
- **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.*

Numbers and Operations in Base Ten	3.NBT
Mastery	

• **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.

Exposure

- **3.NBT.1** Use place value understanding to round whole numbers to the nearest 10 or 100.
- **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.

Numbers and Operations - Fractions

3.NF

Mastery

- **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.2** Understand a fraction as a number on the number line; represent fractions on a number line diagram.
 - a. Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.
 - b. Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.

Exposure

- **3.NF.3** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
 - a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
 - b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3. Explain why the fractions are equivalent, e.g., by using a visual fraction model.
 - c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.*
 - d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Measurement and Data

3.MD

Mastery

- **3.MD.2** Measure and estimate liquid volumes and masses of objects using standard metric 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 metric units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
- **3.MD.7a** 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.
 - 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.

Exposure

- **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.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*
- **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.MD.5** 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.
 - 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.6** Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
- **3.MD.7** (c-d) 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 $a \cdot b$ and $a \cdot c$. Use area models to represent the distributive property in mathematical reasoning.
 - d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.
- **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.

Geometry

Mastery

- **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.G.2** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal areas and describe the area of each part as ¹/₄ of the area of the shape.*

3.G

Operations and Algebraic Thinking

Mastery

- **4.OA.3** Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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.
 - **a.** Know multiplication facts and related division facts through 12 x 12.

Exposure

- **4.OA.1** Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5^{7}$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
- **4.OA.2** Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
- **4.OA.4** Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
- **4.OA.5** Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

Numbers and Operations in Base Ten

4.NBT

4.OA

Mastery

- **4.NBT.1** Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that* 700, 70 = 10 by applying concepts of place value and division.
- **4.NBT.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- **4.NBT.6** Find whole-number quotients and remainders with up to four-digit dividends and onedigit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

- **4.NBT.2** Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
- **4.NBT.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm.

• **4.NBT.3** Use place value understanding to round multi-digit whole numbers to any place.

Numbers and Operations - Fractions

4.NF

Mastery

- **4.NF.1** Explain why a fraction a/b is equivalent to a fraction $(n \cdot a)/(n \cdot b)$ by using visual fraction models, with attention to how the numbers and sizes of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions greater than 1.
- 4.NF.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.
- **4.NF.3** Understand a fraction a/b with a > 1 as a sum of fractions 1/b.
 - a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. (The whole can be a set of objects.)
 - b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. *Examples:* 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 21/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.
- **4.NF.4** Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
 - c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat* 3/8 *of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

- **4.NF.3** Understand a fraction a/b with a > 1 as a sum of fractions 1/b.
 - c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
 - d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
- **4.NF.4** Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
 - a. Understand a fraction a/b as a multiple of 1/b. For example, use a visual fraction model to represent 5/4 as the product 5 (1/4), recording the conclusion by the equation 5/4 = 5 (1/4).
 - b. Understand a multiple of *a/b* as a multiple of *1/b*, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express 3 ´(2/5) as 6 ´(1/5), recognizing this product as 6/5. (In general, n ´(a/b) = (n ´ a)/b.)

- **4.NF.5** Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.[1] *For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.*
- **4.NF.6** Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite* 0.62 as **62/100**; *describe a length as* 0.62 *meters; locate* 0.62 *on a number line diagram.*
- **4.NF.7** Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Measurement and Data

4.MD

Mastery

• **4.MD.2** Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

- **4.MD.1** Know relative sizes of measurement units within one system of units, including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. *For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36)*
- 4.MD.3 Apply the area and perimeter formulas for rectangles in real-world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor. (Note: When finding areas of rectangular regions answers will be in square units. For example, the area of a 1 cm x 1 cm rectangular region will be 1 square centimeter (1 cm2, students are not expected to use this notation.) When finding the perimeter of a rectangular region answers will be in linear units. For example, the perimeter of the region is: 1cm + 1cm + 1cm = 4 cm or 2(1cm) + 2(1cm) = 4 cm).
- **4.MD.4** Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*
- **4.MD.5** Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
 - a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles.

- \circ b. An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.
- **4.MD.6** Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
- **4.MD.7** Recognize angle measure as additive. When an angle is decomposed into nonoverlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Geometry 4.G

Mastery

• **4.G.2** Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

- **4.G.1** Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
- **4.G.3** Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Operations and Algebraic Thinking

Exposure

- **5.OA.1** Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- **5.OA.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "Add 8 and 7, then multiply by 2" as 2 ′ (8 + 7). Recognize that 3 ′ (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.
- **5.OA.3** Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.*

Numbers and Operations in Base Ten

5.NBT

5.OA

Mastery

- **5.NBT.3** Read, write, and compare decimals to thousandths.
 - a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \cdot 100 + 4 \cdot 10 + 7 \cdot 1 + 3 \cdot (1/10) + 9 \cdot (1/100) + 2 \cdot (1/1000)$.
 - b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
- **5.NBT.6** Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- **5.NBT.7** Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Exposure

- **5.NBT.1** Recognize that in a multi-digit number, including decimals, a digit in any place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
- **5.NBT.4** Use place value understanding to round decimals to any place.
- **5.NBT.5** Fluently multiply multi-digit whole numbers using the standard algorithm.
- **5.NBT.2** Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

Numbers and Operations - Fractions

5.NF

Mastery

- **5.NF.1** Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example*, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)
- **5.NF.4** Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
 - a. Interpret the product (a/b) q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a q b. For example, use a visual fraction model and/or area model to show (2/3) 4 = 8/3, and create a story context for this equation. Do the same with (2/3) (4/5) = 8/15. (In general, (a/b) (c/d) = ac/bd.)
- **5.NF.7** Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.[1]
 - a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3), 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3), 4 = 1/12 because $(1/12) \cdot 4 = 1/3$.
 - b. Interpret division of a whole number by a unit fraction, and compute such quotients.
 For example, create a story context for 4, (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4, (1/5) = 20 because 20 (1/5) = 4.

- **5.NF.2** Solve word problems involving addition and subtraction of fractions referring to the same whole (the whole can be a set of objects), including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result* 2/5 + 1/2 = 3/7, *by observing that* 3/7 < 1/2.
- 5.NF.3 Interpret a fraction as division of the numerator by the denominator (*a/b* = *a*, *b*). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret ³/₄ as the result of dividing 3 by 4, noting that ³/₄ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size ³/₄. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?
- **5.NF.4b** Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
 - b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
- **5.NF.5** Interpret multiplication as scaling (resizing), by:
 - a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.

- b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \cdot a)/(n \cdot b)$ to the effect of multiplying a/b by 1.
- **5.NF.6** Solve real-world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
- **5.NF.7** Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.[1]
 - c. Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, how much chocolate will each person get if 3 people share ¹/₂ lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?*

Measurement and Data

Mastery

- **5.MD.3** Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
 - a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
 - b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
- **5.MD.5** Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume.
 - a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.

Exposure

- **5.MD.1** Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real-world problems.
- **5.MD.2** Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*
- **5.MD.4** Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
- **5.MD.5** Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume.

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5.MD

- b. Apply the formula V = 1 w h and V = B h (where B stands for the area of the base) for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems.
- c. Recognize volume as additive. Find volumes of solid figures composed of two nonoverlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real-world problems.

5.G

Geometry

- **5.G.1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).
- **5.G.2** Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
- **5.G.3** Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.*
- **5.G.4** Classify two-dimensional figures in a hierarchy based on properties.

Ratios and Proportional Relationships

6.RP

Mastery

- **6.RP.2** Understand the concept of a unit rate a/b associated with a ratio a:b with b 0, and use rate language in the context of a ratio relationship, including the use of units. For example: This recipe has a ratio of three cups of flour to four cups of sugar, so there is ³/₄ cup of flour for each cup of sugar; We paid \$75 for 15 hamburgers, which is a rate of five dollars per hamburger.
- **6.RP.3** Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
 - a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
 - b. Solve unit rate problems, including those involving unit pricing and constant speed.
 For example, if it took 7 hours to mow 4 lawns, then, at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?
 - c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means **30/100** times the quantity); solve problems involving finding the whole, given a part and the percent.

Exposure

- **6.RP.1** Understand the concept of a ratio including the distinctions between part:part and part:whole and the value of a ratio; part/part and part/whole. Use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."*
- **6.RP.3** Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
 - d. Use ratio reasoning to convert measurement units within and between measurement systems; manipulate and transform units appropriately when multiplying or dividing quantities.
 - A.3.e. Solve problems that relate the mass of an object to its volume.

The Number System

Mastery

6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for (2/3), (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3), (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b), (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in

6.NS

2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?

• **6.NS.8** Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

- 6.NS.2 Fluently divide multi-digit numbers using the standard algorithm.
- **6.NS.3** Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.
- **6.NS.4** Use prime factorization to find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two relatively prime numbers. For example, express 36 + 8 as 4(9 + 2).
- **6.NS.5** Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
- **6.NS.6** Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
 - a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., -(-3) = 3, and that 0 is its own opposite.
 - b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
 - c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
- 6.NS.7 Understand ordering and absolute value of rational numbers.
 - a. Interpret statements of inequality as statements about the relative positions of two numbers on a number line diagram. For example, interpret -3 > -7 as a statement that -3 is located to the right of -7 on a number line oriented from left to right.
 - b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write $-3^{\circ}C > -7^{\circ}C$ to express the fact that $-3^{\circ}C$ is warmer than $-7^{\circ}C$.
 - c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of -30 dollars, write |-30| = 30 to describe the size of the debt in dollars.
 - d. Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.

Mastery

- 6.EE.2 Write, read, and evaluate expressions in which letters stand for numbers.
 - a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 y.*
 - b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.
 - c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.
- **6.EE.3** Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3(2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6(4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.
- **6.EE.9** Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*

- **6.EE.1** Write and evaluate numerical expressions involving whole-number exponents.
- **6.EE.4** Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.
- **6.EE.5** Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
- **6.EE.6** Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
- **6.EE.7** Solve real-world and mathematical problems by writing and solving equations of the form x + p = q and px = q for cases in which p, q, and x are all nonnegative rational numbers.
- **6.EE.8** Write an inequality of the form x > c or x < c to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form x > c or x < c have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

Geometry

Mastery

- **6.G.1** Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
- **6.G.2** Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas V = lwh and V = bh to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
- **6.G.3** Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.

Exposure

• **6.G.4** Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface areas of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

Statistics and Probability

Mastery

- 6.SP.5 Summarize numerical data sets in relation to their context, such as by:
 - a. Reporting the number of observations.
 - b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
 - c. Giving quantitative measures of center (median, and/or mean) and variability (range and/or interquartile range), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.

Exposure

- **6.SP.1** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*
- **6.SP.2** Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
- **6.SP.3** Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.
- **6.SP.4** Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
 - a. Read and interpret circle graphs.
- **6.SP.5d** Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

6.SP

Ratios and Proportional Relationships

Mastery

- 7.RP.2 Recognize and represent proportional relationships between quantities.
 - b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
- **7.RP.3** Use proportional relationships to solve multi-step ratio and percent problems. *Examples:* simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

Exposure

- **7.RP.1** Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units. *For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction 1/2/1/4 miles per hour, equivalently 2 miles per hour.*
- 7.RP.2 Recognize and represent proportional relationships between quantities.
 - a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table, or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
 - c. Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.
 - d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.

The Number System

Mastery

• **7.NS.3** Solve real-world and mathematical problems involving the four operations with integers and other rational numbers.

Exposure

- **7.NS.1** Apply and extend previous understandings of addition and subtraction to add and subtract integers and other rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 - **a.** Describe situations in which opposite quantities combine to make zero. *For example:* A hydrogen atom has zero charge because its two constituents are oppositely charged; If you open a new bank account with a deposit of \$30 and then withdraw \$30, you are left with a \$0 balance.
 - **b.** Understand p + q as the number located a distance |q| from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.

7.NS

- **c.** Understand subtraction of rational numbers as adding the additive inverse, p q = p + (-q). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
- **d.** Apply properties of operations as strategies to add and subtract rational numbers.
- **7.NS.2** Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide integers and other rational numbers.
 - **a.** Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (-1)(-1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
 - **b.** Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then -(p/q) = (-p)/q = p/(-q). Interpret quotients of rational numbers by describing real-world contexts.
 - **c.** Apply properties of operations as strategies to multiply and divide rational numbers.
 - **d.** Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.

Expressions and Equations

7.EE

Mastery

- **7.EE.4a** Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
 - a. Solve word problems leading to equations of the form px + q = r and p(x, q) = r, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?

- **7.EE.1** Apply properties of operations to add, subtract, factor, and expand linear expressions with rational coefficients.
- **7.EE.2** Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. *For example, a + 0.05a = 1.05a means that "increase by 5%" is the same as "multiply by 1.05."*
- **7.EE.3** Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9¾ inches long in the center of a door that is 27½ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

- **7.EE.4** Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
 - b. Solve word problems leading to inequalities of the form px + q > r or px + q < r, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.
 - c. Extend analysis of patterns to include analyzing, extending, and determining an expression for simple arithmetic and geometric sequences (e.g., compounding, increasing area), using tables, graphs, words, and expressions.

Geometry

7.G

Mastery

- **7.G.1** Solve problems involving scale drawings of geometric figures, such as computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
- **7.G.2** Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
- **7.G.6** Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

Exposure

- **7.G.3** Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.
- **7.G.4** Circles and measurement:
 - **a.** Know that a circle is a two-dimensional shape created by connecting all of the points equidistant from a fixed point called the center of the circle.
 - **b.** Understand and describe the relationships among the radius, diameter, and circumference of a circle.
 - **c.** Understand and describe the relationship among the radius, diameter, and area of a circle.
 - **d.** Know the formulas for the area and circumference of a circle and use them to solve problems.
 - **e.** Give an informal derivation of the relationship between the circumference and area of a circle.
- **7.G.5** Use facts about supplementary, complementary, vertical, and adjacent angles in a multistep problem to write and use them to solve simple equations for an unknown angle in a figure.

Statistics and Probability

7.SP

Mastery

• **7.SP.4** Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. *For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.*

- **7.SP.1** Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
- **7.SP.2** Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. *For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.*
- **7.SP.3** Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team and both distributions have similar variability (mean absolute deviation) of about 5 cm. The difference between the mean heights of the two teams (10 cm) is about twice the variability (5 cm) on either team. On a dot plot, the separation between the two distributions of heights is noticeable.
- **7.SP.5** Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around ½ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
- **7.SP.6** Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. *For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.*
- **7.SP.7** Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.
 - a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events.
 - b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?
- **7.SP.8** Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
 - a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
 - b. Represent sample spaces for compound events using methods such as organized lists, tables, and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.
 - c. Design and use a simulation to generate frequencies for compound events.

The Number System

Exposure

- **8.NS.1** Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.
- **8.NS.2** Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., p²). For example, by truncating the decimal expansion of show that is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.

Expressions and Equations

8.EE

8.NS

Mastery

- **8.EE.5** Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*
- **8.EE.7** Solve linear equations in one variable.
 - a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form x = a, a = a, or a = b results (where *a* and *b* are different numbers).
 - b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
- **8.EE.8** Analyze and solve pairs of simultaneous linear equations.
 - a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
 - b. Solve systems of two linear equations in two variables algebraically (using substitution and elimination strategies), and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6.
 - c. Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*

- **8.EE.1** Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example,* $3^2 \cdot 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.
- **8.EE.2** Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that is irrational.

- **8.EE.3** Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3 ~ 10⁸ and the population of the world as 7 ~ 10⁹, and determine that the world population is more than 20 times larger.
- **8.EE.4** Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.
- **8.EE.6** Use similar triangles to explain why the slope *m* is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at *b*.

Functions

Mastery

- **8.F.2** Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*
- **8.F.4** Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (*x*, *y*) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

Exposure

- **8.F.1** Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.
- 8.F.3 Interpret the equation y = mx + b as defining a linear function whose graph is a straight line; give examples of functions that are not linear. For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1, 1), (2, 4) and (3, 9), which are not on a straight line.
- **8.F.5** Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

Geometry

Mastery

- **8.G.4** Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.
- **8.G.8** Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

8.F

8.G

Exposure

- **8.G.1** Verify experimentally the properties of rotations, reflections, and translations:
 - a. Lines are taken to lines, and line segments to line segments of the same length.
 - $\circ~$ b. Angles are taken to angles of the same measure.
 - c. Parallel lines are taken to parallel lines.
- **8.G.2** Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
- **8.G.3** Describe the effects of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
- **8.G.5** Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.
- **8.G.6** a. Understand the relationship among the sides of a right triangle. b. Analyze and justify the Pythagorean Theorem and its converse using pictures, diagrams, narratives, or models.
- **8.G.7** Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
- **8.G.9** Know the formulas for the volumes of cones, cylinders, and spheres, and use them to solve real-world and mathematical problems.

Statistics and Probability

Mastery

• **8.SP.3** Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*

Exposure

- **8.SP.1** Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
- **8.SP.2** Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.
- **8.SP.4** Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables.

8.SP