Common Core State Standards

for Mathematics and English Language Arts Grades K-5

Set up for this booklet ~
Grades K-5 Mathematics then ELA by grade level.

For more information about the standards, please go to: www.corestandards.org.

Compiled by the Monroe Public Schools, December 2013

MATHEMATICS OVERVIEW ~

Throughout the K-12 Mathematics Standards are also the Mathematical Practice Standards.

The Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Connecting the Standards for Mathematical Practice
to the Standards for Mathematical Content

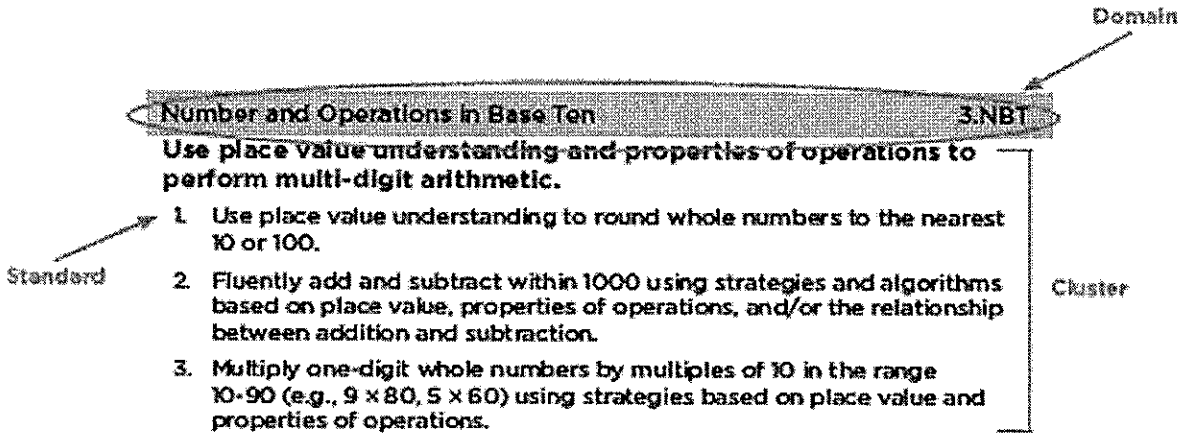
The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years.

Mathematics » Introduction » How to read the grade level standards

Standards define what students should understand and be able to do.

Clusters summarize groups of related standards. Note that standards from different clusters may sometimes be closely related, because mathematics is a connected subject.

Domains are larger groups of related standards. Standards from different domains may sometimes be closely related.



ENGLISH/LANGUAGE ARTS OVERVIEW ~

Key Features of the Standards

K-12 Reading: Text Complexity and the growth of comprehension

- Key Ideas and Details
- Craft and Structure
- Integration of Knowledge and Ideas
- Range of Reading and Level of Text Complexity

K-12 Writing: Text types, responding to reading and research

- Text Types and Purposes
- Production and Distribution of Writing
- Research to Build and Present Knowledge
- Range of Writing

K-12 Speaking and Listening: Flexible communication and collaboration

- Comprehension and Collaboration
- Presentation of Knowledge and Ideas

K-12 Language: Conventions, effective use, and vocabulary

- Conventions of Standard English
- Knowledge of Language
- Vocabulary Acquisition and Use

A single K–5 section lists standards for reading, writing, speaking, listening, and language across the curriculum, reflecting the fact that most or all of the instruction students in these grades receive comes from one teacher.

Grades 6–12 are covered in two content area–specific sections, the first for the English language arts teacher and the second for teachers of history/social studies, science, and technical subjects.

Standards run for grades K-8, 9-10, and 11-12.

KINDERGARTEN MATHEMATICS STANDARDS

Counting and Cardinality

Know number names and the count sequence.

- CCSS.Math.Content.K.CC.A.1 Count to 100 by ones and by tens.
- CCSS.Math.Content.K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- CCSS.Math.Content.K.CC.A.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).

Count to tell the number of objects.

- CCSS.Math.Content.K.CC.B.4 Understand the relationship between numbers and quantities; connect counting to cardinality.
    - CCSS.Math.Content.K.CC.B.4a 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.
    - CCSS.Math.Content.K.CC.B.4b 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.
    - CCSS.Math.Content.K.CC.B.4c Understand that each successive number name refers to a quantity that is one larger.
- CCSS.Math.Content.K.CC.B.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.

Compare numbers.

- CCSS.Math.Content.K.CC.C.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.[1]
- CCSS.Math.Content.K.CC.C.7 Compare two numbers between 1 and 10 presented as written numera

Operations and Algebraic Thinking

Understand addition, and understand subtraction.

- CCSS.Math.Content.K.OA.A.1 Represent addition and subtraction with objects, fingers, mental images, drawings[1], sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
- CCSS.Math.Content.K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- CCSS.Math.Content.K.OA.A.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 $5 = 4 + 1$).
- CCSS.Math.Content.K.OA.A.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.
- CCSS.Math.Content.K.OA.A.5 Fluently add and subtract within 5.

Number and Operations in Base Ten

Work with numbers 11-19 to gain foundations for place value.

- CCSS.Math.Content.K.NBT.A.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 (such as 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

Describe and compare measurable attributes.

- CCSS.Math.Content.K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
- CCSS.Math.Content.K.MD.A.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.*

Classify objects and count the number of objects in each category.

- CCSS.Math.Content.K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.[1]

Geometry

Identify and describe shapes.

- CCSS.Math.Content.K.G.A.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*.
- CCSS.Math.Content.K.G.A.2 Correctly name shapes regardless of their orientations or overall size.
- CCSS.Math.Content.K.G.A.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

Analyze, compare, create, and compose shapes.

- CCSS.Math.Content.K.G.B.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).
- CCSS.Math.Content.K.G.B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
- CCSS.Math.Content.K.G.B.6 Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle*?"

KINDERGARTEN ENGLISH LANGUAGE ARTS STANDARDS

Reading - Literature

Key Ideas and Details

- CCSS.ELA-Literacy.RL.K.1 With prompting and support, ask and answer questions about key details in a text.
- CCSS.ELA-Literacy.RL.K.2 With prompting and support, retell familiar stories, including key details.
- CCSS.ELA-Literacy.RL.K.3 With prompting and support, identify characters, settings, and major events in a story.

Craft and Structure

- CCSS.ELA-Literacy.RL.K.4 Ask and answer questions about unknown words in a text.
- CCSS.ELA-Literacy.RL.K.5 Recognize common types of texts (e.g., storybooks, poems).
- CCSS.ELA-Literacy.RL.K.6 With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RL.K.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).
- (RL.K.8 not applicable to literature)
- CCSS.ELA-Literacy.RL.K.9 With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RL.K.10 Actively engage in group reading activities with purpose and understanding.

Reading - Informational Texts

Key Ideas and Details

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

Craft and Structure

- CCSS.ELA-Literacy.RI.K.4 With prompting and support, ask and answer questions about unknown words in a text.
- CCSS.ELA-Literacy.RI.K.5 Identify the front cover, back cover, and title page of a book.
- CCSS.ELA-Literacy.RI.K.6 Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RI.K.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).
- CCSS.ELA-Literacy.RI.K.8 With prompting and support, identify the reasons an author gives to support points in a text.
- CCSS.ELA-Literacy.RI.K.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).

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RI.K.10 Actively engage in group reading activities with purpose and understanding.

Reading - Foundational Skills

Print Concepts

- CCSS.ELA-Literacy.RF.K.1 Demonstrate understanding of the organization and basic features of print.
  - CCSS.ELA-Literacy.RF.K.1a Follow words from left to right, top to bottom, and page by page.
  - CCSS.ELA-Literacy.RF.K.1b Recognize that spoken words are represented in written language by specific sequences of letters.
  - CCSS.ELA-Literacy.RF.K.1c Understand that words are separated by spaces in print.
  - CCSS.ELA-Literacy.RF.K.1d Recognize and name all upper- and lowercase letters of the alphabet.

Phonological Awareness

- CCSS.ELA-Literacy.RF.K.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
  - CCSS.ELA-Literacy.RF.K.2a Recognize and produce rhyming words.
  - CCSS.ELA-Literacy.RF.K.2b Count, pronounce, blend, and segment syllables in spoken words.
  - CCSS.ELA-Literacy.RF.K.2c Blend and segment onsets and rimes of single-syllable spoken words.
  - CCSS.ELA-Literacy.RF.K.2d Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words.[1] (This does not include CVCs ending with /l/, /r/, or /x/.)
  - CCSS.ELA-Literacy.RF.K.2e Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.

Phonics and Word Recognition

- CCSS.ELA-Literacy.RF.K.3 Know and apply grade-level phonics and word analysis skills in decoding words.
  - CCSS.ELA-Literacy.RF.K.3a 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.
  - CCSS.ELA-Literacy.RF.K.3b Associate the long and short sounds with the common spellings (graphemes) for the five major vowels.
  - CCSS.ELA-Literacy.RF.K.3c Read common high-frequency words by sight (e.g., *the*, *of*, *to*, *you*, *she*, *my*, *is*, *are*, *do*, *does*).
  - CCSS.ELA-Literacy.RF.K.3d Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

Fluency

- CCSS.ELA-Literacy.RF.K.4 Read emergent-reader texts with purpose and understanding.

Writing

Text Types and Purposes

- CCSS.ELA-Literacy.W.K.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...*).
- CCSS.ELA-Literacy.W.K.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
- CCSS.ELA-Literacy.W.K.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

Production and Distribution of Writing

- (W.K.4 begins in grade 3)
- CCSS.ELA-Literacy.W.K.5 With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.
- CCSS.ELA-Literacy.W.K.6 With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.

Research to Build and Present Knowledge

- CCSS.ELA-Literacy.W.K.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).
- CCSS.ELA-Literacy.W.K.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- (W.K.9 begins in grade 4)

Range of Writing

- (W.K.10 begins in grade 3)

Speaking and Listening

Comprehension and Collaboration

- CCSS.ELA-Literacy.SL.K.1 Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
    - CCSS.ELA-Literacy.SL.K.1a Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).
    - CCSS.ELA-Literacy.SL.K.1b Continue a conversation through multiple exchanges.
- CCSS.ELA-Literacy.SL.K.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.
- CCSS.ELA-Literacy.SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

Presentation of Knowledge and Ideas

- CCSS.ELA-Literacy.SL.K.4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
- CCSS.ELA-Literacy.SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.
- CCSS.ELA-Literacy.SL.K.6 Speak audibly and express thoughts, feelings, and ideas clearly.

Language

Conventions of Standard English

- CCSS.ELA-Literacy.L.K.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    - CCSS.ELA-Literacy.L.K.1a Print many upper- and lowercase letters.
    - CCSS.ELA-Literacy.L.K.1b Use frequently occurring nouns and verbs.
    - CCSS.ELA-Literacy.L.K.1c Form regular plural nouns orally by adding /s/ or /es/ (e.g., *dog, dogs; wish, wishes*).
    - CCSS.ELA-Literacy.L.K.1d Understand and use question words (interrogatives) (e.g., *who, what, where, when, why, how*).
    - CCSS.ELA-Literacy.L.K.1e Use the most frequently occurring prepositions (e.g., *to, from, in, out, on, off, for, of, by, with*).

    - CCSS.ELA-Literacy.L.K.1f Produce and expand complete sentences in shared language activities.
- CCSS.ELA-Literacy.L.K.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
    - CCSS.ELA-Literacy.L.K.2a Capitalize the first word in a sentence and the pronoun *I*
    - CCSS.ELA-Literacy.L.K.2b Recognize and name end punctuation.
    - CCSS.ELA-Literacy.L.K.2c Write a letter or letters for most consonant and short-vowel sounds (phonemes).
    - CCSS.ELA-Literacy.L.K.2d Spell simple words phonetically, drawing on knowledge of sound-letter relationships.

Knowledge of Language

- (L.K.3 begins in grade 2)

Vocabulary Acquisition and Use

- CCSS.ELA-Literacy.L.K.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.
    - CCSS.ELA-Literacy.L.K.4a Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* is a bird and learning the verb to *duck*).
    - CCSS.ELA-Literacy.L.K.4b Use the most frequently occurring inflections and affixes (e.g., *-ed, -s, re-, un-, pre-, -ful, -less*) as a clue to the meaning of an unknown word.
- CCSS.ELA-Literacy.L.K.5 With guidance and support from adults, explore word relationships and nuances in word meanings.
    - CCSS.ELA-Literacy.L.K.5a Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.
    - CCSS.ELA-Literacy.L.K.5b Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).
    - CCSS.ELA-Literacy.L.K.5c Identify real-life connections between words and their use (e.g., note places at school that are colorful).
    - CCSS.ELA-Literacy.L.K.5d Distinguish shades of meaning among verbs describing the same general action (e.g., *walk, march, strut, prance*) by acting out the meanings.
- CCSS.ELA-Literacy.L.K.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

FIRST GRADE MATHEMATICS STANDARDS

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

- CCSS.Math.Content.1.OA.A.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 with a symbol for the unknown number to represent the problem.[1]
- CCSS.Math.Content.1.OA.A.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.

Understand and apply properties of operations and the relationship between addition and subtraction.

- CCSS.Math.Content.1.OA.B.3 Apply properties of operations as strategies to add and subtract.[2] *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.)*
- CCSS.Math.Content.1.OA.B.4 Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

Add and subtract within 20.

- CCSS.Math.Content.1.OA.C.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- CCSS.Math.Content.1.OA.C.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use 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).

Work with addition and subtraction equations.

- CCSS.Math.Content.1.OA.D.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.
- CCSS.Math.Content.1.OA.D.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 = _.*

Number and Operations in Base Ten

Extend the counting sequence.

- CCSS.Math.Content.1.NBT.A.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.

Understand place value.

- CCSS.Math.Content.1.NBT.B.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
  - CCSS.Math.Content.1.NBT.B.2a 10 can be thought of as a bundle of ten ones — called a "ten."
  - CCSS.Math.Content.1.NBT.B.2b The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
  - CCSS.Math.Content.1.NBT.B.2c 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).

- CCSS.Math.Content.1.NBT.B.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

Use place value understanding and properties of operations to add and subtract.

- CCSS.Math.Content.1.NBT.C.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.
- CCSS.Math.Content.1.NBT.C.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
- CCSS.Math.Content.1.NBT.C.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.

Measurement and Data

Measure lengths indirectly and by iterating length units.

- CCSS.Math.Content.1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.
- CCSS.Math.Content.1.MD.A.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.*

Tell and write time.

- CCSS.Math.Content.1.MD.B.3 Tell and write time in hours and half-hours using analog and digital clocks.

Represent and interpret data.

- CCSS.Math.Content.1.MD.C.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.

Geometry

Reason with shapes and their attributes.

- CCSS.Math.Content.1.G.A.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 to possess defining attributes.
- CCSS.Math.Content.1.G.A.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.[1]
- CCSS.Math.Content.1.G.A.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.

FIRST GRADE ENGLISH LANGUAGE ARTS STANDARDS

Reading - Literature

Key Ideas and Details

- CCSS.ELA-Literacy.RL.1.1 Ask and answer questions about key details in a text.
- CCSS.ELA-Literacy.RL.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.
- CCSS.ELA-Literacy.RL.1.3 Describe characters, settings, and major events in a story, using key details.

Craft and Structure

- CCSS.ELA-Literacy.RL.1.4 Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.
- CCSS.ELA-Literacy.RL.1.5 Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.
- CCSS.ELA-Literacy.RL.1.6 Identify who is telling the story at various points in a text.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RL.1.7 Use illustrations and details in a story to describe its characters, setting, or events.
- (RL.1.8 not applicable to literature)
- CCSS.ELA-Literacy.RL.1.9 Compare and contrast the adventures and experiences of characters in stories.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RL.1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.

Reading - Informational Texts

Key Ideas and Details

- CCSS.ELA-Literacy.RI.1.1 Ask and answer questions about key details in a text.
- CCSS.ELA-Literacy.RI.1.2 Identify the main topic and retell key details of a text.
- CCSS.ELA-Literacy.RI.1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.

Craft and Structure

- CCSS.ELA-Literacy.RI.1.4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
- CCSS.ELA-Literacy.RI.1.5 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.
- CCSS.ELA-Literacy.RI.1.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RI.1.7 Use the illustrations and details in a text to describe its key ideas.
- CCSS.ELA-Literacy.RI.1.8 Identify the reasons an author gives to support points in a text.
- CCSS.ELA-Literacy.RI.1.9 Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RI.1.10 With prompting and support, read informational texts appropriately complex for grade 1.

Reading - Foundational Skills

Print Concepts

- CCSS.ELA-Literacy.RF.1.1 Demonstrate understanding of the organization and basic features of print.
    - CCSS.ELA-Literacy.RF.1.1a Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).

Phonological Awareness

- CCSS.ELA-Literacy.RF.1.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
    - CCSS.ELA-Literacy.RF.1.2a Distinguish long from short vowel sounds in spoken single-syllable words.
    - CCSS.ELA-Literacy.RF.1.2b Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.
    - CCSS.ELA-Literacy.RF.1.2c Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.
    - CCSS.ELA-Literacy.RF.1.2d Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).

Phonics and Word Recognition

- CCSS.ELA-Literacy.RF.1.3 Know and apply grade-level phonics and word analysis skills in decoding words.
    - CCSS.ELA-Literacy.RF.1.3a Know the spelling-sound correspondences for common consonant digraphs.
    - CCSS.ELA-Literacy.RF.1.3b Decode regularly spelled one-syllable words.
    - CCSS.ELA-Literacy.RF.1.3c Know final -e and common vowel team conventions for representing long vowel sounds.
    - CCSS.ELA-Literacy.RF.1.3d Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
    - CCSS.ELA-Literacy.RF.1.3e Decode two-syllable words following basic patterns by breaking the words into syllables.
    - CCSS.ELA-Literacy.RF.1.3f Read words with inflectional endings.
    - CCSS.ELA-Literacy.RF.1.3g Recognize and read grade-appropriate irregularly spelled words.

Fluency

- CCSS.ELA-Literacy.RF.1.4 Read with sufficient accuracy and fluency to support comprehension.
    - CCSS.ELA-Literacy.RF.1.4a Read grade-level text with purpose and understanding.
    - CCSS.ELA-Literacy.RF.1.4b Read grade-level text orally with accuracy, appropriate rate, and expression on successive readings.
    - CCSS.ELA-Literacy.RF.1.4c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing

Text Types and Purposes

- CCSS.ELA-Literacy.W.1.1 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.
- CCSS.ELA-Literacy.W.1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.
- CCSS.ELA-Literacy.W.1.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.

Production and Distribution of Writing

- (W.1.4 begins in grade 3)
- CCSS.ELA-Literacy.W.1.5 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.
- CCSS.ELA-Literacy.W.1.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Research to Build and Present Knowledge

- CCSS.ELA-Literacy.W.1.7 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).
- CCSS.ELA-Literacy.W.1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- (W.1.9 begins in grade 4)

Range of Writing

- (W.1.10 begins in grade 3)

Speaking and Listening

Comprehension and Collaboration

- CCSS.ELA-Literacy.SL.1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
    - CCSS.ELA-Literacy.SL.1.1a 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).
    - CCSS.ELA-Literacy.SL.1.1b Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
    - CCSS.ELA-Literacy.SL.1.1c Ask questions to clear up any confusion about the topics and texts under discussion.
- CCSS.ELA-Literacy.SL.1.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
- CCSS.ELA-Literacy.SL.1.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

Presentation of Knowledge and Ideas

- CCSS.ELA-Literacy.SL.1.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
- CCSS.ELA-Literacy.SL.1.5 Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
- CCSS.ELA-Literacy.SL.1.6 Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 here for specific expectations.)

Language

Conventions of Standard English

- CCSS.ELA-Literacy.L.1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    - CCSS.ELA-Literacy.L.1.1a Print all upper- and lowercase letters.
    - CCSS.ELA-Literacy.L.1.1b Use common, proper, and possessive nouns.
    - CCSS.ELA-Literacy.L.1.1c Use singular and plural nouns with matching verbs in basic sentences (e.g., He hops; We hop).

- CCSS.ELA-Literacy.L.1.1d Use personal, possessive, and indefinite pronouns (e.g., I, me, my; they, them, their, anyone, everything).
- CCSS.ELA-Literacy.L.1.1e Use verbs to convey a sense of past, present, and future (e.g., Yesterday I walked home; Today I walk home; Tomorrow I will walk home).
- CCSS.ELA-Literacy.L.1.1f Use frequently occurring adjectives.
- CCSS.ELA-Literacy.L.1.1g Use frequently occurring conjunctions (e.g., *and, but, or, so, because*).
- CCSS.ELA-Literacy.L.1.1h Use determiners (e.g., articles, demonstratives).
- CCSS.ELA-Literacy.L.1.1i Use frequently occurring prepositions (e.g., *during, beyond, toward*).
- CCSS.ELA-Literacy.L.1.1j Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.

- CCSS.ELA-Literacy.L.1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
  - CCSS.ELA-Literacy.L.1.2a Capitalize dates and names of people.
  - CCSS.ELA-Literacy.L.1.2b Use end punctuation for sentences.
  - CCSS.ELA-Literacy.L.1.2c Use commas in dates and to separate single words in a series.
  - CCSS.ELA-Literacy.L.1.2d Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.
  - CCSS.ELA-Literacy.L.1.2e Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.

Knowledge of Language

- (L.1.3 begins in grade 2)

Vocabulary Acquisition and Use

- CCSS.ELA-Literacy.L.1.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 1 reading and content*, choosing flexibly from an array of strategies.
  - CCSS.ELA-Literacy.L.1.4a Use sentence-level context as a clue to the meaning of a word or phrase.
  - CCSS.ELA-Literacy.L.1.4b Use frequently occurring affixes as a clue to the meaning of a word.
  - CCSS.ELA-Literacy.L.1.4c Identify frequently occurring root words (e.g., *look*) and their inflectional forms (e.g., *looks, looked, looking*).
- CCSS.ELA-Literacy.L.1.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.
  - CCSS.ELA-Literacy.L.1.5a Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.
  - CCSS.ELA-Literacy.L.1.5b Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes).
  - CCSS.ELA-Literacy.L.1.5c Identify real-life connections between words and their use (e.g., note places at home that are *cozy*).
  - CCSS.ELA-Literacy.L.1.5d Distinguish shades of meaning among verbs differing in manner (e.g., *look, peek, glance, stare, glare, scowl*) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.
- CCSS.ELA-Literacy.L.1.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*).

SECOND GRADE MATHEMATICS STANDARDS

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

- CCSS.Math.Content.2.OA.A.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.[1]

Add and subtract within 20.

- CCSS.Math.Content.2.OA.B.2 Fluently add and subtract within 20 using mental strategies.[2] By end of Grade 2, know from memory all sums of two one-digit numbers.

Work with equal groups of objects to gain foundations for multiplication.

- CCSS.Math.Content.2.OA.C.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.
- CCSS.Math.Content.2.OA.C.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.

Number and Operations in Base Ten

Understand place value.

- CCSS.Math.Content.2.NBT.A.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:
  - CCSS.Math.Content.2.NBT.A.1a 100 can be thought of as a bundle of ten tens — called a "hundred."
  - CCSS.Math.Content.2.NBT.A.1b 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).
- CCSS.Math.Content.2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s.
- CCSS.Math.Content.2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- CCSS.Math.Content.2.NBT.A.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.

Use place value understanding and properties of operations to add and subtract.

- CCSS.Math.Content.2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- CCSS.Math.Content.2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.
- CCSS.Math.Content.2.NBT.B.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.
- CCSS.Math.Content.2.NBT.B.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
- CCSS.Math.Content.2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.[1]

Measurement and Data

Measure and estimate lengths in standard units.

- CCSS.Math.Content.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- CCSS.Math.Content.2.MD.A.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.
- CCSS.Math.Content.2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.
- CCSS.Math.Content.2.MD.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Relate addition and subtraction to length.

- CCSS.Math.Content.2.MD.B.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.
- CCSS.Math.Content.2.MD.B.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.

Work with time and money.

- CCSS.Math.Content.2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
- CCSS.Math.Content.2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?

Represent and interpret data.

- CCSS.Math.Content.2.MD.D.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
- CCSS.Math.Content.2.MD.D.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.

Geometry

Reason with shapes and their attributes.

- CCSS.Math.Content.2.G.A.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.
- CCSS.Math.Content.2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
- CCSS.Math.Content.2.G.A.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.

SECOND GRADE ENGLISH LANGUAGE ARTS STANDARDS

Reading - Literature

Key Ideas and Details

- CCSS.ELA-Literacy.RL.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- CCSS.ELA-Literacy.RL.2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
- CCSS.ELA-Literacy.RL.2.3 Describe how characters in a story respond to major events and challenges.

Craft and Structure

- CCSS.ELA-Literacy.RL.2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
- CCSS.ELA-Literacy.RL.2.5 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
- CCSS.ELA-Literacy.RL.2.6 Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RL.2.7 Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
- (RL.2.8 not applicable to literature)
- CCSS.ELA-Literacy.RL.2.9 Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RL.2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading - Informational Texts

Key Ideas and Details

- CCSS.ELA-Literacy.RI.2.1 Ask and answer such questions as *who, what, where, when, why*, and *how* to demonstrate understanding of key details in a text.
- CCSS.ELA-Literacy.RI.2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
- CCSS.ELA-Literacy.RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

Craft and Structure

- CCSS.ELA-Literacy.RI.2.4 Determine the meaning of words and phrases in a text relevant to a *grade 2 topic or subject area.*
- CCSS.ELA-Literacy.RI.2.5 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.
- CCSS.ELA-Literacy.RI.2.6 Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RI.2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

- CCSS.ELA-Literacy.RI.2.8 Describe how reasons support specific points the author makes in a text.
- CCSS.ELA-Literacy.RI.2.9 Compare and contrast the most important points presented by two texts on the same topic.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RI.2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading - Foundational Skills

Phonics and Word Recognition

- CCSS.ELA-Literacy.RF.2.3 Know and apply grade-level phonics and word analysis skills in decoding words.
    - CCSS.ELA-Literacy.RF.2.3a Distinguish long and short vowels when reading regularly spelled one-syllable words.
    - CCSS.ELA-Literacy.RF.2.3b Know spelling-sound correspondences for additional common vowel teams.
    - CCSS.ELA-Literacy.RF.2.3c Decode regularly spelled two-syllable words with long vowels.
    - CCSS.ELA-Literacy.RF.2.3d Decode words with common prefixes and suffixes.
    - CCSS.ELA-Literacy.RF.2.3e Identify words with inconsistent but common spelling-sound correspondences.
    - CCSS.ELA-Literacy.RF.2.3f Recognize and read grade-appropriate irregularly spelled words.

Fluency

- CCSS.ELA-Literacy.RF.2.4 Read with sufficient accuracy and fluency to support comprehension.
    - CCSS.ELA-Literacy.RF.2.4a Read grade-level text with purpose and understanding.
    - CCSS.ELA-Literacy.RF.2.4b Read grade-level text orally with accuracy, appropriate rate, and expression on successive readings.
    - CCSS.ELA-Literacy.RF.2.4c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing

Text Types and Purposes

- CCSS.ELA-Literacy.W.2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., *because*, *and*, *also*) to connect opinion and reasons, and provide a concluding statement or section.
- CCSS.ELA-Literacy.W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
- CCSS.ELA-Literacy.W.2.3 Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

Production and Distribution of Writing

- (W.2.4 begins in grade 3)
- CCSS.ELA-Literacy.W.2.5 With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
- CCSS.ELA-Literacy.W.2.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Research to Build and Present Knowledge

- CCSS.ELA-Literacy.W.2.7 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).
- CCSS.ELA-Literacy.W.2.8 Recall information from experiences or gather information from provided sources to answer a question.
- (W.2.9 begins in grade 4)

Range of Writing

- (W.2.10 begins in grade 3)

Speaking and Listening

Comprehension and Collaboration

- CCSS.ELA-Literacy.SL.2.1 Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups.
    - CCSS.ELA-Literacy.SL.2.1a 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).
    - CCSS.ELA-Literacy.SL.2.1b Build on others' talk in conversations by linking their comments to the remarks of others.
    - CCSS.ELA-Literacy.SL.2.1c Ask for clarification and further explanation as needed about the topics and texts under discussion.
- CCSS.ELA-Literacy.SL.2.2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
- CCSS.ELA-Literacy.SL.2.3 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.

Presentation of Knowledge and Ideas

- CCSS.ELA-Literacy.SL.2.4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
- CCSS.ELA-Literacy.SL.2.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.
- CCSS.ELA-Literacy.SL.2.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 here for specific expectations.)

Language

Conventions of Standard English

- CCSS.ELA-Literacy.L.2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    - CCSS.ELA-Literacy.L.2.1a Use collective nouns (e.g., *group*).
    - CCSS.ELA-Literacy.L.2.1b Form and use frequently occurring irregular plural nouns (e.g., *feet, children, teeth, mice, fish*).
    - CCSS.ELA-Literacy.L.2.1c Use reflexive pronouns (e.g., *myself, ourselves*).
    - CCSS.ELA-Literacy.L.2.1d Form and use the past tense of frequently occurring irregular verbs (e.g., *sat, hid, told*).
    - CCSS.ELA-Literacy.L.2.1e Use adjectives and adverbs, and choose between them depending on what is to be modified.

- CCSS.ELA-Literacy.L.2.1f Produce, expand, and rearrange complete simple and compound sentences (e.g., *The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy*).

- CCSS.ELA-Literacy.L.2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
  - CCSS.ELA-Literacy.L.2.2a Capitalize holidays, product names, and geographic names.
  - CCSS.ELA-Literacy.L.2.2b Use commas in greetings and closings of letters.
  - CCSS.ELA-Literacy.L.2.2c Use an apostrophe to form contractions and frequently occurring possessives.
  - CCSS.ELA-Literacy.L.2.2d Generalize learned spelling patterns when writing words (e.g., *cage → badge; boy → boil*).
  - CCSS.ELA-Literacy.L.2.2e Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Knowledge of Language

- CCSS.ELA-Literacy.L.2.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  - CCSS.ELA-Literacy.L.2.3a Compare formal and informal uses of English

Vocabulary Acquisition and Use

- CCSS.ELA-Literacy.L.2.4 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.
  - CCSS.ELA-Literacy.L.2.4a Use sentence-level context as a clue to the meaning of a word or phrase.
  - CCSS.ELA-Literacy.L.2.4b Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., *happy/unhappy, tell/retell*).
  - CCSS.ELA-Literacy.L.2.4c Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *addition, additional*).
  - CCSS.ELA-Literacy.L.2.4d Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*).
  - CCSS.ELA-Literacy.L.2.4e Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.
- CCSS.ELA-Literacy.L.2.5 Demonstrate understanding of word relationships and nuances in word meanings.
  - CCSS.ELA-Literacy.L.2.5a Identify real-life connections between words and their use (e.g., *describe foods that are spicy or juicy*).
  - CCSS.ELA-Literacy.L.2.5b Distinguish shades of meaning among closely related verbs (e.g., *toss, throw, hurl*) and closely related adjectives (e.g., *thin, slender, skinny, scrawny*).
- CCSS.ELA-Literacy.L.2.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., *When other kids are happy that makes me happy*).

THIRD GRADE MATHEMATICS STANDARDS

Operations and Algebraic Thinking

Represent and solve problems involving multiplication and division.

- CCSS.Math.Content.3.OA.A.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.*
- CCSS.Math.Content.3.OA.A.2 Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.*
- CCSS.Math.Content.3.OA.A.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.[1]
- CCSS.Math.Content.3.OA.A.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \_ \div 3$, $6 \times 6 = ?$*

Understand properties of multiplication and the relationship between multiplication and division.

- CCSS.Math.Content.3.OA.B.5 Apply properties of operations as strategies to multiply and divide.[2] *Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)*
- CCSS.Math.Content.3.OA.B.6 Understand division as an unknown-factor problem. *For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.*

Multiply and divide within 100.

- CCSS.Math.Content.3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

- CCSS.Math.Content.3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.[3]
- CCSS.Math.Content.3.OA.D.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.*

Number and Operations in Base Ten

Use place value understanding and properties of operations to perform multi-digit arithmetic.[1]

- CCSS.Math.Content.3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100.
- CCSS.Math.Content.3.NBT.A.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.
- CCSS.Math.Content.3.NBT.A.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.

Number and Operations Fractions

Develop understanding of fractions as numbers.

- CCSS.Math.Content.3.NF.A.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 $1/b$.
- CCSS.Math.Content.3.NF.A.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.
    - CCSS.Math.Content.3.NF.A.2a 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.
    - CCSS.Math.Content.3.NF.A.2b 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.
- CCSS.Math.Content.3.NF.A.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
    - CCSS.Math.Content.3.NF.A.3a Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
    - CCSS.Math.Content.3.NF.A.3b 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.
    - CCSS.Math.Content.3.NF.A.3c 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.*
    - CCSS.Math.Content.3.NF.A.3d 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

Solve problems involving measurement and estimation.

- CCSS.Math.Content.3.MD.A.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.
- CCSS.Math.Content.3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).[1] Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.[2]

Represent and interpret data.

- CCSS.Math.Content.3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*
- CCSS.Math.Content.3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

- CCSS.Math.Content.3.MD.C.5 Recognize area as an attribute of plane figures and understand concepts of area measurement.
    - CCSS.Math.Content.3.MD.C.5a 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.
    - CCSS.Math.Content.3.MD.C.5b 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.
- CCSS.Math.Content.3.MD.C.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
- CCSS.Math.Content.3.MD.C.7 Relate area to the operations of multiplication and addition.
    - CCSS.Math.Content.3.MD.C.7a 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.
    - CCSS.Math.Content.3.MD.C.7b 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.
    - CCSS.Math.Content.3.MD.C.7c Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
    - CCSS.Math.Content.3.MD.C.7d 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.

Geometric measurement: recognize perimeter.

- CCSS.Math.Content.3.MD.D.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Geometry

Reason with shapes and their attributes.

- CCSS.Math.Content.3.G.A.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.
- CCSS.Math.Content.3.G.A.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*

THIRD GRADE ENGLISH LANGUAGE ARTS STANDARDS

Reading - Literature

Key Ideas and Details

- CCSS.ELA-Literacy.RL.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- CCSS.ELA-Literacy.RL.3.2 Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.
- CCSS.ELA-Literacy.RL.3.3 Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events

Craft and Structure

- CCSS.ELA-Literacy.RL.3.4 Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.
- CCSS.ELA-Literacy.RL.3.5 Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
- CCSS.ELA-Literacy.RL.3.6 Distinguish their own point of view from that of the narrator or those of the characters.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RL.3.7 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)
- (RL.3.8 not applicable to literature)
- CCSS.ELA-Literacy.RL.3.9 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)

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RL.3.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.

Reading - Informational Texts

Key Ideas and Details

- CCSS.ELA-Literacy.RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- CCSS.ELA-Literacy.RI.3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.
- CCSS.ELA-Literacy.RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Craft and Structure

- CCSS.ELA-Literacy.RI.3.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area.*
- CCSS.ELA-Literacy.RI.3.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
- CCSS.ELA-Literacy.RI.3.6 Distinguish their own point of view from that of the author of a text.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RI.3.7 Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
- CCSS.ELA-Literacy.RI.3.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).
- CCSS.ELA-Literacy.RI.3.9 Compare and contrast the most important points and key details presented in two texts on the same topic.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RI.3.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.

Reading - Foundational Skills

Phonics and Word Recognition

- CCSS.ELA-Literacy.RF.3.3 Know and apply grade-level phonics and word analysis skills in decoding words.
    - CCSS.ELA-Literacy.RF.3.3a Identify and know the meaning of the most common prefixes and derivational suffixes.
    - CCSS.ELA-Literacy.RF.3.3b Decode words with common Latin suffixes.
    - CCSS.ELA-Literacy.RF.3.3c Decode multisyllable words.
    - CCSS.ELA-Literacy.RF.3.3d Read grade-appropriate irregularly spelled words.

Fluency

- CCSS.ELA-Literacy.RF.3.4 Read with sufficient accuracy and fluency to support comprehension.
    - CCSS.ELA-Literacy.RF.3.4a Read grade-level text with purpose and understanding.
    - CCSS.ELA-Literacy.RF.3.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
    - CCSS.ELA-Literacy.RF.3.4c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing

Text Types and Purposes

- CCSS.ELA-Literacy.W.3.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.
    - CCSS.ELA-Literacy.W.3.1a Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
    - CCSS.ELA-Literacy.W.3.1b Provide reasons that support the opinion.
    - CCSS.ELA-Literacy.W.3.1c Use linking words and phrases (e.g., *because*, *therefore*, *since*, *for example*) to connect opinion and reasons.
    - CCSS.ELA-Literacy.W.3.1d Provide a concluding statement or section.
- CCSS.ELA-Literacy.W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
    - CCSS.ELA-Literacy.W.3.2a Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
    - CCSS.ELA-Literacy.W.3.2b Develop the topic with facts, definitions, and details.
    - CCSS.ELA-Literacy.W.3.2c Use linking words and phrases (e.g., *also*, *another*, *and*, *more*, *but*) to connect ideas within categories of information.
    - CCSS.ELA-Literacy.W.3.2d Provide a concluding statement or section.

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

Production and Distribution of Writing

- CCSS.ELA-Literacy.W.3.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- CCSS.ELA-Literacy.W.3.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 3 here.)
- CCSS.ELA-Literacy.W.3.6 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.

Research to Build and Present Knowledge

- CCSS.ELA-Literacy.W.3.7 Conduct short research projects that build knowledge about a topic.
- CCSS.ELA-Literacy.W.3.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
- (W.3.9 begins in grade 4)

Range of Writing

- CCSS.ELA-Literacy.W.3.10 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.

Speaking and Listening

Comprehension and Collaboration

- CCSS.ELA-Literacy.SL.3.1 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.
    - CCSS.ELA-Literacy.SL.3.1a 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.
    - CCSS.ELA-Literacy.SL.3.1b 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).
    - CCSS.ELA-Literacy.SL.3.1c Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
    - CCSS.ELA-Literacy.SL.3.1d Explain their own ideas and understanding in light of the discussion.
- CCSS.ELA-Literacy.SL.3.2 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.
- CCSS.ELA-Literacy.SL.3.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

Presentation of Knowledge and Ideas

- CCSS.ELA-Literacy.SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
- CCSS.ELA-Literacy.SL.3.5 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.
- CCSS.ELA-Literacy.SL.3.6 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 here for specific expectations.)

Language

Conventions of Standard English

- CCSS.ELA-Literacy.L.3 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    - CCSS.ELA-Literacy.L.3.1a Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.
    - CCSS.ELA-Literacy.L.3.1b Form and use regular and irregular plural nouns.
    - CCSS.ELA-Literacy.L.3.1c Use abstract nouns (e.g., *childhood*).
    - CCSS.ELA-Literacy.L.3.1d Form and use regular and irregular verbs.
    - CCSS.ELA-Literacy.L.3.1e Form and use the simple (e.g., *I walked; I walk; I will walk*) verb tenses.
    - CCSS.ELA-Literacy.L.3.1f Ensure subject-verb and pronoun-antecedent agreement.*
    - CCSS.ELA-Literacy.L.3.1g Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.
    - CCSS.ELA-Literacy.L.3.1h Use coordinating and subordinating conjunctions.
    - CCSS.ELA-Literacy.L.3.1i Produce simple, compound, and complex sentences.
- CCSS.ELA-Literacy.L.3.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
    - CCSS.ELA-Literacy.L.3.2a Capitalize appropriate words in titles.
    - CCSS.ELA-Literacy.L.3.2b Use commas in addresses.
    - CCSS.ELA-Literacy.L.3.2c Use commas and quotation marks in dialogue.
    - CCSS.ELA-Literacy.L.3.2d Form and use possessives.
    - CCSS.ELA-Literacy.L.3.2e Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*).
    - CCSS.ELA-Literacy.L.3.2f Use spelling patterns and generalizations (e.g., *word families, position-based spellings, syllable patterns, ending rules, meaningful word parts*) in writing words.
    - CCSS.ELA-Literacy.L.3.2g Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Knowledge of Language

- CCSS.ELA-Literacy.L.3.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
    - CCSS.ELA-Literacy.L.3.3a Choose words and phrases for effect.*
    - CCSS.ELA-Literacy.L.3.3b Recognize and observe differences between the conventions of spoken and written standard English.

Vocabulary Acquisition and Use

- CCSS.ELA-Literacy.L.3.4 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.
    - CCSS.ELA-Literacy.L.3.4a Use sentence-level context as a clue to the meaning of a word or phrase.
    - CCSS.ELA-Literacy.L.3.4b 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*).
    - CCSS.ELA-Literacy.L.3.4c Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company, companion*).
    - CCSS.ELA-Literacy.L.3.4d Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.
- CCSS.ELA-Literacy.L.3.5 Demonstrate understanding of figurative language, word relationships and nuances in word meanings.
    - CCSS.ELA-Literacy.L.3.5a Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*).
    - CCSS.ELA-Literacy.L.3.5b Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*).
    - CCSS.ELA-Literacy.L.3.5c Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*).
- CCSS.ELA-Literacy.L.3.6 Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*).

FOURTH GRADE MATHEMATICS STANDARDS

Operations and Algebraic Thinking

Use the four operations with whole numbers to solve problems.

- CCSS.Math.Content.4.OA.A.1 Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ 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.
- CCSS.Math.Content.4.OA.A.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.[1]
- CCSS.Math.Content.4.OA.A.3 Solve multistep 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.

Gain familiarity with factors and multiples.

- CCSS.Math.Content.4.OA.B.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.

Generate and analyze patterns.

- CCSS.Math.Content.4.OA.C.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.*

Number and Operations in Base Ten

Generalize place value understanding for multi-digit whole numbers.

- CCSS.Math.Content.4.NBT.A.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 $700 \div 70 = 10$ by applying concepts of place value and division.*
- CCSS.Math.Content.4.NBT.A.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.
- CCSS.Math.Content.4.NBT.A.3 Use place value understanding to round multi-digit whole numbers to any place.

Use place value understanding and properties of operations to perform multi-digit arithmetic.

- CCSS.Math.Content.4.NBT.B.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.
- CCSS.Math.Content.4.NBT.B.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.
- CCSS.Math.Content.4.NBT.B.6 Find whole-number quotients and remainders with up to four-digit dividends and one-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.

Number and Operations Fractions

Extend understanding of fraction equivalence and ordering.

- CCSS.Math.Content.4.NF.A.1 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
- CCSS.Math.Content.4.NF.A.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.

Build fractions from unit fractions.

- CCSS.Math.Content.4.NF.B.3 Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.
    - CCSS.Math.Content.4.NF.B.3a Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
    - CCSS.Math.Content.4.NF.B.3b 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 ; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.*
    - CCSS.Math.Content.4.NF.B.3c 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.
    - CCSS.Math.Content.4.NF.B.3d 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.
- CCSS.Math.Content.4.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
    - CCSS.Math.Content.4.NF.B.4a 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).*
    - CCSS.Math.Content.4.NF.B.4b 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.)*
    - CCSS.Math.Content.4.NF.B.4c 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?*

Understand decimal notation for fractions, and compare decimal fractions.

- CCSS.Math.Content.4.NF.C.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.[2] *For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.*
- CCSS.Math.Content.4.NF.C.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.*

- CCSS.Math.Content.4.NF.C.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

Solve problems involving measurement and conversion of measurements.

- CCSS.Math.Content.4.MD.A.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), ...*
- CCSS.Math.Content.4.MD.A.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.
- CCSS.Math.Content.4.MD.A.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.*

Represent and interpret data.

- CCSS.Math.Content.4.MD.B.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.*

Geometric measurement: understand concepts of angle and measure angles.

- CCSS.Math.Content.4.MD.C.5 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
    - CCSS.Math.Content.4.MD.C.5a 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.
    - CCSS.Math.Content.4.MD.C.5b An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.
- CCSS.Math.Content.4.MD.C.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
- CCSS.Math.Content.4.MD.C.7 Recognize angle measure as additive. When an angle is decomposed into non-overlapping 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

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

- CCSS.Math.Content.4.G.A.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

- CCSS.Math.Content.4.G.A.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.
- CCSS.Math.Content.4.G.A.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.

FOURTH GRADE ENGLISH LANGUAGE ARTS STANDARDS

Reading - Literature

Key Ideas and Details

- CCSS.ELA-Literacy.RL.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- CCSS.ELA-Literacy.RL.4.2 Determine a theme of a story, drama, or poem from details in the text; summarize the text.
- CCSS.ELA-Literacy.RL.4.3 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).

Craft and Structure

- CCSS.ELA-Literacy.RL.4.4 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).
- CCSS.ELA-Literacy.RL.4.5 Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.
- CCSS.ELA-Literacy.RL.4.6 Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RL.4.7 Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.
- (RL.4.8 not applicable to literature)
- CCSS.ELA-Literacy.RL.4.9 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.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RL.4.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading - Informational Texts

Key Ideas and Details

- CCSS.ELA-Literacy.RI.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- CCSS.ELA-Literacy.RI.4.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.
- CCSS.ELA-Literacy.RI.4.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

Craft and Structure

- CCSS.ELA-Literacy.RI.4.4 Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area.*
- CCSS.ELA-Literacy.RI.4.5 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.
- CCSS.ELA-Literacy.RI.4.6 Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RI.4.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
- CCSS.ELA-Literacy.RI.4.8 Explain how an author uses reasons and evidence to support particular points in a text.
- CCSS.ELA-Literacy.RI.4.9 Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RI.4.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading - Foundational Skills

Phonics and Word Recognition

- CCSS.ELA-Literacy.RF.4.3 Know and apply grade-level phonics and word analysis skills in decoding words.
    - CCSS.ELA-Literacy.RF.4.3a Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

Fluency

- CCSS.ELA-Literacy.RF.4.4 Read with sufficient accuracy and fluency to support comprehension.
    - CCSS.ELA-Literacy.RF.4.4a Read grade-level text with purpose and understanding.
    - CCSS.ELA-Literacy.RF.4.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
    - CCSS.ELA-Literacy.RF.4.4c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing

Text Types and Purposes

- CCSS.ELA-Literacy.W.4.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
    - CCSS.ELA-Literacy.W.4.1a Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.
    - CCSS.ELA-Literacy.W.4.1b Provide reasons that are supported by facts and details.
    - CCSS.ELA-Literacy.W.4.1c Link opinion and reasons using words and phrases (e.g., *for instance*, *in order to*, *in addition*).
    - CCSS.ELA-Literacy.W.4.1d Provide a concluding statement or section related to the opinion presented.
- CCSS.ELA-Literacy.W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
    - CCSS.ELA-Literacy.W.4.2a Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
    - CCSS.ELA-Literacy.W.4.2b Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

    - CCSS.ELA-Literacy.W.4.2c Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*).
    - CCSS.ELA-Literacy.W.4.2d Use precise language and domain-specific vocabulary to inform about or explain the topic.
    - CCSS.ELA-Literacy.W.4.2e Provide a concluding statement or section related to the information or explanation presented.
- CCSS.ELA-Literacy.W.4.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
    - CCSS.ELA-Literacy.W.4.3a Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
    - CCSS.ELA-Literacy.W.4.3b Use dialogue and description to develop experiences and events or show the responses of characters to situations.
    - CCSS.ELA-Literacy.W.4.3c Use a variety of transitional words and phrases to manage the sequence of events.
    - CCSS.ELA-Literacy.W.4.3d Use concrete words and phrases and sensory details to convey experiences and events precisely.
    - CCSS.ELA-Literacy.W.4.3e Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

- CCSS.ELA-Literacy.W.4.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- CCSS.ELA-Literacy.W.4.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 4 here.)
- CCSS.ELA-Literacy.W.4.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

Research to Build and Present Knowledge

- CCSS.ELA-Literacy.W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.
- CCSS.ELA-Literacy.W.4.8 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.
- CCSS.ELA-Literacy.W.4.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.
    - CCSS.ELA-Literacy.W.4.9a Apply *grade 4 Reading standards* to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions].").
    - CCSS.ELA-Literacy.W.4.9b Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").

Range of Writing

- CCSS.ELA-Literacy.W.4.10 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.

Speaking and Listening

Comprehension and Collaboration

- CCSS.ELA-Literacy.SL.4.1 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.
    - CCSS.ELA-Literacy.SL.4.1a 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.
    - CCSS.ELA-Literacy.SL.4.1b Follow agreed-upon rules for discussions and carry out assigned roles.
    - CCSS.ELA-Literacy.SL.4.1c 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.
    - CCSS.ELA-Literacy.SL.4.1d Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.
- CCSS.ELA-Literacy.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- CCSS.ELA-Literacy.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.

Presentation of Knowledge and Ideas

- CCSS.ELA-Literacy.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- CCSS.ELA-Literacy.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
- CCSS.ELA-Literacy.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 here for specific expectations.)

Language

Conventions of Standard English

- CCSS.ELA-Literacy.L.4.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    - CCSS.ELA-Literacy.L.4.1a Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*).
    - CCSS.ELA-Literacy.L.4.1b Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses.
    - CCSS.ELA-Literacy.L.4.1c Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions.
    - CCSS.ELA-Literacy.L.4.1d Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*).
    - CCSS.ELA-Literacy.L.4.1e Form and use prepositional phrases.
    - CCSS.ELA-Literacy.L.4.1f Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.*
    - CCSS.ELA-Literacy.L.4.1g Correctly use frequently confused words (e.g., *to, too, two; there, their*).*
- CCSS.ELA-Literacy.L.4.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
    - CCSS.ELA-Literacy.L.4.2a Use correct capitalization.

- CCSS.ELA-Literacy.L.4.2b Use commas and quotation marks to mark direct speech and quotations from a text.
- CCSS.ELA-Literacy.L.4.2c Use a comma before a coordinating conjunction in a compound sentence.
- CCSS.ELA-Literacy.L.4.2d Spell grade-appropriate words correctly, consulting references as needed.

Knowledge of Language

- CCSS.ELA-Literacy.L.4.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  - CCSS.ELA-Literacy.L.4.3a Choose words and phrases to convey ideas precisely.*
  - CCSS.ELA-Literacy.L.4.3b Choose punctuation for effect.*
  - CCSS.ELA-Literacy.L.4.3c Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).

Vocabulary Acquisition and Use

- CCSS.ELA-Literacy.L.4.4 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.
  - CCSS.ELA-Literacy.L.4.4a Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
  - CCSS.ELA-Literacy.L.4.4b Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*).
  - CCSS.ELA-Literacy.L.4.4c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
- CCSS.ELA-Literacy.L.4.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
  - CCSS.ELA-Literacy.L.4.5a Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context.
  - CCSS.ELA-Literacy.L.4.5b Recognize and explain the meaning of common idioms, adages, and proverbs.
  - CCSS.ELA-Literacy.L.4.5c Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).
- CCSS.ELA-Literacy.L.4.6 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).

FIFTH GRADE MATHEMATICS STANDARDS

Operations and Algebraic Thinking

Write and interpret numerical expressions.

- CCSS.Math.Content.5.OA.A.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- CCSS.Math.Content.5.OA.A.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.*

Analyze patterns and relationships.

- CCSS.Math.Content.5.OA.B.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.*

Number and Operations in Base Ten

Understand the place value system.

- CCSS.Math.Content.5.NBT.A.1 Recognize that in a multi-digit number, a digit in one 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.
- CCSS.Math.Content.5.NBT.A.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.
- CCSS.Math.Content.5.NBT.A.3 Read, write, and compare decimals to thousandths.
    - CCSS.Math.Content.5.NBT.A.3a Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).
    - CCSS.Math.Content.5.NBT.A.3b Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
- CCSS.Math.Content.5.NBT.A.4 Use place value understanding to round decimals to any place.

Perform operations with multi-digit whole numbers and with decimals to hundredths.

- CCSS.Math.Content.5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.
- CCSS.Math.Content.5.NBT.B.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.
- CCSS.Math.Content.5.NBT.B.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.

Number and Operations Fractions

Use equivalent fractions as a strategy to add and subtract fractions.

- CCSS.Math.Content.5.NF.A.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.)*
- CCSS.Math.Content.5.NF.A.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, 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.*

Apply and extend previous understandings of multiplication and division.

- CCSS.Math.Content.5.NF.B.3 Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). 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?*
- CCSS.Math.Content.5.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
    - CCSS.Math.Content.5.NF.B.4a Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. *For example, use a visual fraction 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.)*
    - CCSS.Math.Content.5.NF.B.4b 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.
- CCSS.Math.Content.5.NF.B.5 Interpret multiplication as scaling (resizing), by:
    - CCSS.Math.Content.5.NF.B.5a 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.
    - CCSS.Math.Content.5.NF.B.5b 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 $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.
- CCSS.Math.Content.5.NF.B.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.
- CCSS.Math.Content.5.NF.B.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.[1]
    - CCSS.Math.Content.5.NF.B.7a 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) × 4 = 1/3.*

- CCSS.Math.Content.5.NF.B.7b 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.*
- CCSS.Math.Content.5.NF.B.7c 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

Convert like measurement units within a given measurement system.

- CCSS.Math.Content.5.MD.A.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.

Represent and interpret data.

- CCSS.Math.Content.5.MD.B.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.*

Geometric measurement: understand concepts of volume.

- CCSS.Math.Content.5.MD.C.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
  - CCSS.Math.Content.5.MD.C.3a 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.
  - CCSS.Math.Content.5.MD.C.3b 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.
- CCSS.Math.Content.5.MD.C.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
- CCSS.Math.Content.5.MD.C.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
  - CCSS.Math.Content.5.MD.C.5a 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.
  - CCSS.Math.Content.5.MD.C.5b Apply the formulas $V = l \times w \times h$ and $V = b \times h$ 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.
  - CCSS.Math.Content.5.MD.C.5c Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Geometry

Graph points on the coordinate plane to solve real-world and mathematical problems.

- CCSS.Math.Content.5.G.A.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).
- CCSS.Math.Content.5.G.A.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.

Classify two-dimensional figures into categories based on their properties.

- CCSS.Math.Content.5.G.B.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.
- CCSS.Math.Content.5.G.B.4 Classify two-dimensional figures in a hierarchy based on properties.

FIFTH GRADE ENGLISH LANGUAGE ARTS STANDARDS

Reading - Literature

Key Ideas and Details

- CCSS.ELA-Literacy.RL.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- CCSS.ELA-Literacy.RL.5.2 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.
- CCSS.ELA-Literacy.RL.5.3 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).

Craft and Structure

- CCSS.ELA-Literacy.RL.5.4 Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.
- CCSS.ELA-Literacy.RL.5.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
- CCSS.ELA-Literacy.RL.5.6 Describe how a narrator's or speaker's point of view influences how events are described.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RL.5.7 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).
- (RL.5.8 not applicable to literature)
- CCSS.ELA-Literacy.RL.5.9 Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RL.5.10 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.

Reading - Informational Texts

Key Ideas and Details

- CCSS.ELA-Literacy.RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- CCSS.ELA-Literacy.RI.5.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
- CCSS.ELA-Literacy.RI.5.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

Craft and Structure

- CCSS.ELA-Literacy.RI.5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area.*
- CCSS.ELA-Literacy.RI.5.5 Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.
- CCSS.ELA-Literacy.RI.5.6 Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RI.5.7 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.
- CCSS.ELA-Literacy.RI.5.8 Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).
- CCSS.ELA-Literacy.RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RI.5.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.

Reading - Foundational Skills

Phonics and Word Recognition

- CCSS.ELA-Literacy.RF.5.3 Know and apply grade-level phonics and word analysis skills in decoding words.
    - CCSS.ELA-Literacy.RF.5.3a Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

Fluency

- CCSS.ELA-Literacy.RF.5.4 Read with sufficient accuracy and fluency to support comprehension.
    - CCSS.ELA-Literacy.RF.5.4a Read grade-level text with purpose and understanding.
    - CCSS.ELA-Literacy.RF.5.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
    - CCSS.ELA-Literacy.RF.5.4c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing

Text Types and Purposes

- CCSS.ELA-Literacy.W.5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
    - CCSS.ELA-Literacy.W.5.1a Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
    - CCSS.ELA-Literacy.W.5.1b Provide logically ordered reasons that are supported by facts and details.
    - CCSS.ELA-Literacy.W.5.1c Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*).
    - CCSS.ELA-Literacy.W.5.1d Provide a concluding statement or section related to the opinion presented.
- CCSS.ELA-Literacy.W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
    - CCSS.ELA-Literacy.W.5.2a Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
    - CCSS.ELA-Literacy.W.5.2b Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

    - CCSS.ELA-Literacy.W.5.2c Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*).
    - CCSS.ELA-Literacy.W.5.2d Use precise language and domain-specific vocabulary to inform about or explain the topic.
    - CCSS.ELA-Literacy.W.5.2e Provide a concluding statement or section related to the information or explanation presented.
- CCSS.ELA-Literacy.W.5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
    - CCSS.ELA-Literacy.W.5.3a Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
    - CCSS.ELA-Literacy.W.5.3b Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
    - CCSS.ELA-Literacy.W.5.3c Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
    - CCSS.ELA-Literacy.W.5.3d Use concrete words and phrases and sensory details to convey experiences and events precisely.
    - CCSS.ELA-Literacy.W.5.3e Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

- CCSS.ELA-Literacy.W.5.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- CCSS.ELA-Literacy.W.5.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 here.)
- CCSS.ELA-Literacy.W.5.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

Research to Build and Present Knowledge

- CCSS.ELA-Literacy.W.5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
- CCSS.ELA-Literacy.W.5.8 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.
- CCSS.ELA-Literacy.W.5.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.
    - CCSS.ELA-Literacy.W.5.9a Apply *grade 5 Reading standards* to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]").
    - CCSS.ELA-Literacy.W.5.9b Apply *grade 5 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]").

Range of Writing

- CCSS.ELA-Literacy.W.5.10 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.

Speaking and Listening

Comprehension and Collaboration

- CCSS.ELA-Literacy.SL.5.1 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.
    - CCSS.ELA-Literacy.SL.5.1a 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.
    - CCSS.ELA-Literacy.SL.5.1b Follow agreed-upon rules for discussions and carry out assigned roles.
    - CCSS.ELA-Literacy.SL.5.1c Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
    - CCSS.ELA-Literacy.SL.5.1d Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
- CCSS.ELA-Literacy.SL.5.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- CCSS.ELA-Literacy.SL.5.3 Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

Presentation of Knowledge and Ideas

- CCSS.ELA-Literacy.SL.5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- CCSS.ELA-Literacy.SL.5.5 Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
- CCSS.ELA-Literacy.SL.5.6 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 here for specific expectations.)

Language

Conventions of Standard English

- CCSS.ELA-Literacy.L.5.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    - CCSS.ELA-Literacy.L.5.1a Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.
    - CCSS.ELA-Literacy.L.5.1b Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses.
    - CCSS.ELA-Literacy.L.5.1c Use verb tense to convey various times, sequences, states, and conditions.
    - CCSS.ELA-Literacy.L.5.1d Recognize and correct inappropriate shifts in verb tense.*
    - CCSS.ELA-Literacy.L.5.1e Use correlative conjunctions (e.g., *either/or, neither/nor*).
- CCSS.ELA-Literacy.L.5.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- CCSS.ELA-Literacy.L.5.2a Use punctuation to separate items in a series.*
- CCSS.ELA-Literacy.L.5.2b Use a comma to separate an introductory element from the rest of the sentence.
- CCSS.ELA-Literacy.L.5.2c 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?*).
- CCSS.ELA-Literacy.L.5.2d Use underlining, quotation marks, or italics to indicate titles of works.
- CCSS.ELA-Literacy.L.5.2e Spell grade-appropriate words correctly, consulting references as needed.

Knowledge of Language

- CCSS.ELA-Literacy.L.5.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  - CCSS.ELA-Literacy.L.5.3a Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
  - CCSS.ELA-Literacy.L.5.3b Compare and contrast the varieties of English (e.g., *dialects, registers*) used in stories, dramas, or poems.

Vocabulary Acquisition and Use

- CCSS.ELA-Literacy.L.5.4 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.
  - CCSS.ELA-Literacy.L.5.4a Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
  - CCSS.ELA-Literacy.L.5.4b Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*).
  - CCSS.ELA-Literacy.L.5.4c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
- CCSS.ELA-Literacy.L.5.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
  - CCSS.ELA-Literacy.L.5.5a Interpret figurative language, including similes and metaphors, in context.
  - CCSS.ELA-Literacy.L.5.5b Recognize and explain the meaning of common idioms, adages, and proverbs.
  - CCSS.ELA-Literacy.L.5.5c Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
- CCSS.ELA-Literacy.L.5.6 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*).