

Standards By Design:

***Fifth Grade for English Language Arts &
Literacy (CCSS), Science, Mathematics (CCSS)
and Social Sciences (2011)***



English Language Arts & Literacy (CCSS)

Fifth Grade

Instruction in the Common Core State Standards (CCSS) for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects will prepare Oregon students to be proficient in the four strands of the English language arts (ELA) skills—Reading, Writing, Language, and Speaking and Listening. Because students need grade-level literacy skills to access full content in school, the emphasis in the Common Core is to learn to read and write in ELA and to develop those skills, specific to the content, in all other classes. For grades K-5, the ELA and subject-area literacy standards are integrated; for grades 6-11/12, they are separate but parallel.

Literature - The following standards offer a focus for instruction in literary text and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades.

Key Ideas and Details

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

5.RL.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

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

5.RL.2 Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.

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

5.RL.3 Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).

Craft and Structure

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

5.RL.4 Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.

Standards are identified by grade, strand, and number (or number and letter, where applicable); for example, **8.RL.1**, means *grade 8, Reading Literature, standard 1*.

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

5.RL.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.

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

5.RL.6 Describe how a narrator's or speaker's point of view influences how events are described.

Integration of Knowledge and Ideas

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

5.RL.7 Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).

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

5.RL.8 (Not applicable to literature)

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

5.RL.9 Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

Range of Reading and Level of Text Complexity

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

5.RL.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.

Informational Text - The following standards offer a focus for instruction in informational text and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades.

Key Ideas and Details

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

5.RI.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

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

Standards are identified by grade, strand, and number (or number and letter, where applicable); for example, **8.RL.1**, means *grade 8, Reading Literature, standard 1*.

5.RI.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

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

5.RI.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

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

5.RI.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

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

5.RI.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.

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

5.RI.6 Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.

Integration of Knowledge and Ideas

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

5.RI.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

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

5.RI.8 Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).

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

5.RI.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

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

Standards are identified by grade, strand, and number (or number and letter, where applicable); for example, **8.RL.1**, means *grade 8, Reading Literature, standard 1*.

5.RI.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.

Foundational Skills - These standards are directed toward fostering students' understanding and working knowledge of concepts of print, the alphabetic principle, and other basic conventions of the English writing system. These foundational skills are not an end in and of themselves; rather, they are necessary and important components of an effective, comprehensive reading program designed to develop proficient readers with the capacity to comprehend texts across a range of types and disciplines.

Print Concepts

Anchor Standard: There are no anchor standards associated with Foundational Skills.

5.RF.1 There is not a grade 5 standard for this concept. Please see preceding grades for more information.

Phonological Awareness

Anchor Standard: There are no anchor standards associated with Foundational Skills.

5.RF.2 There is not a grade 5 standard for this concept. Please see preceding grades for more information.

Phonics and Word Recognition

Anchor Standard: There are no anchor standards associated with Foundational Skills.

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

- Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

Fluency

Anchor Standard: There are no anchor standards associated with Foundational Skills.

5.RF.4 Read with sufficient accuracy and fluency to support comprehension.

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

Standards are identified by grade, strand, and number (or number and letter, where applicable); for example, **8.RL.1**, means *grade 8, Reading Literature, standard 1*.

Writing - The following standards offer a focus for instruction in writing to help ensure that students gain adequate mastery of a range of skills and applications. Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, and they should address increasingly demanding content and sources.

Text Types and Purposes

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

- 5.W.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
 - Provide logically ordered reasons that are supported by facts and details.
 - Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).
 - Provide a concluding statement or section related to the opinion presented.

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

- 5.W.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
 - Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
 - Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).
 - Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - Provide a concluding statement or section related to the information or explanation presented.

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

- 5.W.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
 - Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
 - Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
 - Use concrete words and phrases and sensory details to convey experiences and events precisely.
 - Provide a conclusion that follows from the narrated experiences or events.

Standards are identified by grade, strand, and number (or number and letter, where applicable); for example, **8.RL.1**, means *grade 8, Reading Literature, standard 1*.

Production and Distribution of Writing

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

5.W.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

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

5.W.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.)

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

5.W.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

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

5.W.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

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

5.W.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.

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

5.W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

a. 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]”).

b. Apply grade 5 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]”).

Range of Writing

Standards are identified by grade, strand, and number (or number and letter, where applicable); for example, **8.RL.1**, means *grade 8, Reading Literature, standard 1*.

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

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

Speaking and Listening - The following standards offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

Comprehension and Collaboration

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

5.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

- a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- b. Follow agreed-upon rules for discussions and carry out assigned roles.
- c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
- d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

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

5.SL.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

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

5.SL.3 Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

Presentation of Knowledge and Ideas

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

Standards are identified by grade, strand, and number (or number and letter, where applicable); for example, **8.RL.1**, means *grade 8, Reading Literature, standard 1*.

5.SL.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.

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

5.SL.5 Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

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

5.SL.6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 for specific expectations.)

Language - The following standards offer a focus for instruction to help ensure that students gain adequate mastery of a range of skills and applications. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

Conventions of Standard English

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

5.L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

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

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

5.L.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- a. Use punctuation to separate items in a series.
- b. Use a comma to separate an introductory element from the rest of the sentence.
- c. Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?).
- d. Use underlining, quotation marks, or italics to indicate titles of works.
- e. Spell grade-appropriate words correctly, consulting references as needed.

Standards are identified by grade, strand, and number (or number and letter, where applicable); for example, **8.RL.1**, means *grade 8, Reading Literature, standard 1*.

Knowledge of Language

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

- 5.L.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
 - Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.

Vocabulary Acquisition and Use

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

- 5.L.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.
- Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
 - Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis).
 - Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

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

- 5.L.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- Interpret figurative language, including similes and metaphors, in context.
 - Recognize and explain the meaning of common idioms, adages, and proverbs.
 - Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

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

- 5.L.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition).

Science Numbering Key Example: K.2P.1

K = Grade

2 = Core Standard strand (strands are 1=Structure and Function; 2=Interaction and change; 3=Scientific Inquiry; 4=Engineering Design)

P = Science Discipline (disciplines are P = Physical; L = Life; E = Earth and Space; S = Scientific inquiry; D = Engineering Design)

1 = Number of the content standard for this grade, strand, and discipline

Science

Fifth Grade

Fifth grade science students develop an understanding of living and non-living things as systems composed of related parts that function together and interact with force, energy, and matter. They investigate the Sun-Earth-Moon system, how energy from the sun affects Earth's weather and climate, and how forces affect objects on Earth. They study adaptation and the interdependence of organisms and the environment. Students extend their work with scientific inquiry, designing and conducting simple investigations to answer questions or test hypotheses, and collecting, organizing, summarizing, analyzing, and interpreting data. They also extend their work with engineering design using science principles to describe, design, and build a solution to a problem given criteria and constraints. Students learn that inventions may lead to other inventions.

*It is essential that these standards be addressed in contexts that promote scientific inquiry, use of evidence, critical thinking, making connections, and communication.

5.1 Structure and Function: Living and non-living things are composed of related parts that function together to form systems.

5.1L.1 Explain that organisms are composed of parts that function together to form a living system.

5.1E.1 Describe the Sun-Earth-Moon system.

5.2 Interaction and Change: Force, energy, matter, and organisms interact within living and non-living systems.

5.2P.1 Describe how friction, gravity, and magnetic forces affect objects on or near Earth.

5.2L.1 Explain the interdependence of plants, animals, and environment, and how adaptation influences survival.

5.2E.1 Explain how the energy from the sun affects Earth's weather and climate.

Science Numbering Key Example: K.2P.1

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5.3 Scientific Inquiry: Scientific inquiry is a process of investigation based on science principles and questioning, collecting, describing, and examining evidence to explain natural phenomena and artifacts.

5.3S.1 Based on observations and science principles, identify questions that can be tested, design an experiment or investigation, and identify appropriate tools. Collect and record multiple observations while conducting investigations or experiments to test a scientific question or hypothesis.

5.3S.2 Identify patterns in data that support a reasonable explanation for the results of an investigation or experiment and communicate findings using graphs, charts, maps, models, and oral and written reports.

5.3S.3 Explain the reasons why similar investigations may have different results.

5.4 Engineering Design: Engineering design is a process of using science principles to make modifications in the world to meet human needs and aspirations.

5.4D.1 Using science principles describe a solution to a need or problem given criteria and constraints.

5.4D.2 Design and build a prototype of a proposed engineering solution and identify factors such as cost, safety, appearance, environmental impact, and what will happen if the solution fails.

5.4D.3 Explain that inventions may lead to other inventions and once an invention exists, people may think of novel ways of using it.

K-8 standards are grouped by cluster, and identified by grade, domain, and number; for example, **4.OA.3**, means *grade 4, Operations and Algebraic Thinking, standard 3*. In High School, standards are grouped by conceptual category, domain, and number; for example, **A.CED.1**, means *Algebra, Creating Equations, standard 1*.

Mathematics (CCSS)

Fifth Grade

Mathematical Practices (5.MP)

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

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

Operations and Algebraic Thinking (5.OA)

5.OA.A Write and interpret numerical expressions.

- 5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- 5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

5.OA.B Analyze patterns and relationships.

- 5.OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.

K-8 standards are grouped by cluster, and identified by grade, domain, and number; for example, **4.OA.3**, means *grade 4, Operations and Algebraic Thinking, standard 3*. In High School, standards are grouped by conceptual category, domain, and number; for example, **A.CED.1**, means *Algebra, Creating Equations, standard 1*.

Number and Operations in Base Ten (5.NBT)

5.NBT.C Understand the place value system.

5.NBT.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 $\frac{1}{10}$ of what it represents in the place to its left.

5.NBT.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

5.NBT.3 Read, write, and compare decimals to thousandths.

5.NBT.3a Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.

5.NBT.3b Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

5.NBT.4 Use place value understanding to round decimals to any place.

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

5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm.

5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

5.NBT.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Number and Operations - Fractions (5.NF)

5.NF.E Use equivalent fractions as a strategy to add and subtract fractions.

5.NF.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.

5.NF.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.

K-8 standards are grouped by cluster, and identified by grade, domain, and number; for example, **4.OA.3**, means *grade 4, Operations and Algebraic Thinking, standard 3*. In High School, standards are grouped by conceptual category, domain, and number; for example, **A.CED.1**, means *Algebra, Creating Equations, standard 1*.

5.NF.F Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

5.NF.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.

5.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.

5.NF.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 $a \times q \div b$.

5.NF.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.

5.NF.5 Interpret multiplication as scaling (resizing), by:

5.NF.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.

5.NF.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.

5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

5.NF.7a Interpret division of a unit fraction by a non-zero whole number, and compute such quotients.

5.NF.7b Interpret division of a whole number by a unit fraction, and compute such quotients.

5.NF.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.

Measurement and Data (5.MD)

5.MD.G Convert like measurement units within a given measurement system.

5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

K-8 standards are grouped by cluster, and identified by grade, domain, and number; for example, **4.OA.3**, means *grade 4, Operations and Algebraic Thinking, standard 3*. In High School, standards are grouped by conceptual category, domain, and number; for example, **A.CED.1**, means *Algebra, Creating Equations, standard 1*.

5.MD.H Represent and interpret data.

5.MD.2 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots.

5.MD.I Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

5.MD.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.

5.MD.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.

5.MD.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.

5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.

5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

5.MD.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.

5.MD.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.

5.MD.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 (5.G)

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

5.G.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).

K-8 standards are grouped by cluster, and identified by grade, domain, and number; for example, **4.OA.3**, means *grade 4, Operations and Algebraic Thinking, standard 3*. In High School, standards are grouped by conceptual category, domain, and number; for example, **A.CED.1**, means *Algebra, Creating Equations, standard 1*.

5.G.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

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

5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.

5.G.4 Classify two-dimensional figures in a hierarchy based on properties.

Social Sciences (2011)

Fifth Grade

It is essential that these standards be addressed in contexts that promote Social Science Analysis, civic responsibility, understanding global relationships, enhanced communication, making connections between the past, present and future, and the ability to evaluate historical and contemporary issues. Focus (to include but not limited to): U.S. History 1492-1786

Historical Knowledge

Relate significant events and eras in local, state, United States, and world history to past and present issues and developments.

- 1.1. Identify and compare historical Native American groups and settlements that existed in North America prior to contact with European exploration in the late fifteenth and sixteenth centuries.
- 5.2. Locate and examine accounts of early Spanish, French and British explorations of North America noting major land and water routes, reasons for exploration and the location and impact of exploration and settlement.
- 5.3. Explain the religious, political, and economic reasons for movement of people from Europe to the Americas and describe instances of both cooperation and conflict between Native American Indians and European settlers.
- 5.4. Identify and locate the 13 British colonies that became the United States and identify the early founders, describe daily life (political, social, and economic organization and structure), and describe early colonial resistance to British rule.

Historical Thinking

Use multiple perspectives, primary sources, context, and reasoning skills to understand the significance of events, people, ideas and institutions.

- 5.5. Create and interpret timelines showing major people, events and developments in the early history of the United States.
- 5.6. Use primary and secondary sources to formulate historical questions, to examine an historical account about an issue of the time, and to reconstruct the literal meaning of the passages by identifying who was involved, what happened, where it happened, and what events led to these developments and what consequences or outcomes followed.

Geography

Understand and use geographic skills and concepts to interpret contemporary and historical issues.

- 5.7. Identify, locate, and describe places and regions in the United States.
- 5.8. Use various types of maps to describe and explain the United States.
- 5.9. Explain migration, trade, and cultural patterns in the United States.
- 5.10. Describe how physical and political features influence events, movements, and adaptation to the environment.
- 5.11. Describe how technological developments, societal decisions, and personal practices influence sustainability in the United States.

Civics and Government

Understand and apply knowledge about governmental and political systems, and the rights and responsibilities of citizens.

- 5.12. Analyze how cooperation and conflict among people contribute to political, economic and social events and situations in the United States.
- 5.13. Describe and summarize how colonial and new states' governments affected groups within their population (e.g., citizens, slaves, foreigners, nobles, women, class systems, tribes).
- 5.14. Compare and contrast tribal forms of government, British monarchy, and early American colonial governments.
- 5.15. Identify principles of U.S. democracy found in the U.S. Constitution and Bill of Rights.
- 5.16. Describe how national government affects local and state government.

Economics/Financial Literacy

Understand economic concepts and principles and how available resources are allocated in a market and other economies. Understand and apply knowledge and skills to manage one's financial resources effectively for lifetime financial security.

- 5.17. Explain ways trade can be restricted or encouraged (e.g., boycott) and how these affect producers and consumers.
- 5.18. Explain the purpose of taxes and give examples from U.S. history of their use.

Social Science Analysis

Design and implement strategies to research for reliable information, analyze issues, explain perspectives, and resolve issues using the social sciences.

- 5.19. Analyze two accounts of the same event or topic and describe important similarities and differences.
- 5.20. Gather, use and document information from multiple sources (e.g., print, electronic, human, primary, secondary) to examine an event, issue, or problem through inquiry and research.
- 5.21. Identify and study two or more points of view of an event, issue or problem.
- 5.22. Identify characteristics of an event, issue, or problem, suggesting possible causes and results.
- 5.23. Propose a response or solution to an issue or problem and support why it makes sense, using support from research.