

5

FIFTH GRADE



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LANGUAGE ARTS

By the end of Fifth Grade, students will:

READING STANDARDS FOR LITERATURE

Key Ideas & Details

- Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- 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.
- 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 & Structure

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

Integration of Knowledge & Ideas

- 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).
- 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

- 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 STANDARDS FOR INFORMATIONAL TEXT

Key Ideas & Details

- Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
- 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 & Structure

- Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
- 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.
- Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.

Integration of Knowledge & Ideas

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

- 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

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

READING STANDARDS: FOUNDATIONAL SKILLS

Phonics & Word Recognition

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

Fluency

- Read with sufficient accuracy and fluency to support comprehension.

WRITING STANDARDS

Text Types & Purposes

- Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

Production & Distribution of Writing

- Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
- 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 & Present Knowledge

- Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
- 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.
- Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing

- 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 & LISTENING STANDARDS

Comprehension & Collaboration

- 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.
- Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- Summarize the points a speaker or media source makes and explain how each claim is supported by reasons and evidence, and identify and analyze any logical fallacies.

Presentation of Knowledge & Ideas

- 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.
- Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
- Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.

LANGUAGE STANDARDS

Conventions of Standard English

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

Knowledge of Language

- Use knowledge of language and its conventions when writing, speaking, reading, or listening.

Vocabulary Acquisition and Use

- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on all grade 5 reading content, choosing flexibly from a range of strategies.
- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- 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).

MATHEMATICS

By the end of Fifth Grade, students will:

OPERATIONS AND ALGEBRAIC THINKING

Write and interpret numerical expressions.

- Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.
- Express a whole number in the range 2–50 as a product of its prime factors.

Analyze patterns and relationships.

- Use numerical rules and patterns to form ordered pairs. Graph the ordered pairs on a coordinate plane (e.g., x-axis and y-axis).

NUMBER AND OPERATIONS IN BASE TEN

Understand the place value system.

- Recognize the value of digits in a multi-digit number.
- Explain patterns when multiplying a number by powers of 10. Explain patterns when a decimal is multiplied or divided by a power of 10.
- Read, write, and compare decimals to thousandths.
- Use place value understanding to round decimals to any place.

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

- Fluently multiply multi-digit whole numbers using the standard algorithm.
- Find whole-number quotients by dividing four-digit dividends by two-digit divisors. Illustrate and explain calculations by using equations, rectangular arrays, and/or area models.

- Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies and 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.

- Add and subtract fractions with unlike denominators, including mixed numbers.
- Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators.

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

- Interpret a fraction as a division of the numerator by the denominator. Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.
- Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
- Interpret multiplication as scaling of a number (e.g., similar to a scale on a map).
- Solve real world problems involving multiplication of fractions and mixed numbers.
- Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

MEASUREMENT AND DATA

Convert like measurement units within a given measurement system.

- Convert among different-sized standard measurement units within a given measurement system and use these conversions in solving multi-step, real world problems.

Represent and interpret data.

- Make a line plot to display a data set of measurements in fractions of a unit. Use operations on fractions for this grade to solve problems involving information presented in line plots.

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

- Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
- Measure volumes by counting unit cubes.
- Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. 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.

GEOMETRY

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

- Understand how to graph ordered pairs on a coordinate plane (e.g., x-axis and x-coordinate, y-axis and y-coordinate).
- Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points.

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

- Classify two-dimensional shapes into categories. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.
- Classify two-dimensional figures in a hierarchy based on properties.

SCIENCE

By the end of Fifth Grade, students will:

LIFE SCIENCES

- Support an argument that plants get the materials they need for growth primarily from air and water.
- Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

EARTH & SPACE SCIENCES

- Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.
- Represent data in graphs to reveal patterns of daily changes in length and direction of shadows, patterns of day and night, and the seasonal appearance of some stars in the night sky.
- Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.
- Describe and graph the amounts and percentages of water, including fresh water in various reservoirs, to provide evidence about the distribution of water on Earth.
- Obtain and combine information about ways individual communities use scientific ideas to protect the Earth's resources and environment.

PHYSICAL SCIENCES

- Develop a model to describe that matter is made of particles too small to be seen.
- Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.
- Make observations and measurements to identify materials based on their properties.
- Conduct an investigation to determine whether the mixing of two or more substances results in new substances.
- Support an argument that the gravitational force of Earth acts on an object by pulling it down, toward the center of the Earth.
- Use models to describe that energy in animals' food (used for body repair, growth, motion, and warmth) was once energy from the sun.

ENGINEERING DESIGN (GRADES 3-5)

- Define a simple design problem that includes specified criteria for success and constraints on materials, time, or cost.
- Generate and compare multiple solutions to a problem based on how well each solution likely meets the criteria and constraints of the problem.
- Plan and carry out fair tests in which variables are controlled and failure points are considered in order to identify improvements for a model or prototype.

HISTORY/SOCIAL SCIENCE

By the end of Fifth Grade, students will:

UNITED STATES HISTORY & GEOGRAPHY: MAKING A NEW NATION

Pre-Columbian Settlements

Learn about the major pre-Columbian settlements, including the cliff dwellers and pueblo people of the desert Southwest, the American Indians of the Pacific Northwest, the nomadic nations of the Great Plains, and the woodland peoples east of the Mississippi River, in terms of:

- How geography and climate influenced the way various nations lived and adjusted to the natural environment.
- The varied customs, traditions, economies, and systems of government.

European Exploration

Learn about the early explorations of the Americas, in terms of:

- Why Europeans chose to explore and colonize the New World.
- The land and sea routes they used.
- The land they claimed.
- Native American and European relations.
- Learn about the cooperation and conflict that existed among the Indians and between the Indian nations and the new settlers and the significant leaders of the time.

Colonial America

Learn about the political, religious, social, and economic institutions that evolved in the colonial era in terms of:

- Major individuals and groups responsible for the founding of the colonies, the reasons for their founding, and the influence of location and physical setting.
- The introduction of slavery into America.
- Causes of the American Revolution
- Learn about the political, religious, and economic reasons that brought about the American Revolution in terms of:
- The people and events associated with the drafting and signing of the Declaration of Independence and the document's significance.
- The views, lives, and impact of key individuals during this period.

The American Revolution and Its Consequences

- Study the course and consequences of the American Revolution, including major battles, leaders, Indian alliances, French contributions, roles of women, and economic hardships.
- Study how the ideals of the Declaration of Independence the way people viewed slavery.
- Study how state constitutions established after 1776 embodied ideals of the American Revolution.

The U.S. Constitution

- Learn the story of the people and events associated with the development of the U.S. Constitution.
- Analyze its significance as the foundation of the American republic.

Settlement of America

- Trace the colonization, immigration, and settlement patterns of the American people from 1789 to the mid-1800's.

States and Capitals

- Know the location of the current 50 states and the names of capitals.
- Learn how and when western lands became part of the U.S..