

Language Arts

Word Analysis, Fluency, and Systematic Vocabulary Development

Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.

Use word origins to determine the meaning of unknown words.

Understand and explain frequently used synonyms, antonyms, and homographs.

Know abstract, derived roots and affixes from Greek and Latin and use this knowledge to analyze the meaning of complex words (e.g., controversial).

Understand and explain the figurative and metaphorical use of words in context.

Reading Comprehension (Focus on Informational Materials)

Understand how text features (e.g., format, graphics, sequence, diagrams, illustrations, charts, maps) make information accessible and usable.

Discern main ideas and concepts presented in texts, identifying and assessing evidence that supports those ideas.

Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge.

Distinguish facts, supported inferences, and opinions in text.

Literary Response and Analysis

Identify and analyze the characteristics of poetry, drama, fiction, and nonfiction and explain the appropriateness of the literary forms chosen by an author for a specific purpose.

Identify the main problem or conflict of the plot and explain how it is resolved.

Contrast the actions, motives (e.g., loyalty, selfishness, conscientiousness), and appearances of characters in a work of fiction and discuss the importance of the contrasts to the plot or theme.

Understand that theme refers to the meaning or moral of a selection and recognize themes (whether implied or stated directly) in sample works.

Describe the function and effect of common literary devices (e.g., imagery, metaphor, symbolism).

Evaluate the author's use of various techniques (e.g., appeal of characters in a picture book, logic and credibility of plots and settings, use of figurative language) to influence readers' perspectives.

Writing Strategies

Create multiple-paragraph narrative compositions.

Create multiple-paragraph expository compositions.

Use organizational features of printed text (e.g., citations, end notes, bibliographic references) to locate relevant information.

Create simple documents by using electronic media and employing organizational features (e.g., passwords, entry and pull-down menus, word searches, the thesaurus, spell checks).

Edit and revise manuscripts to improve the meaning and focus of writing by adding, deleting, consolidating, clarifying, and rearranging words and sentences.

Writing Applications (Genres and Their Characteristics)

Write narratives.

Write responses to literature.

Write research reports about important ideas, issues, or events.

Write persuasive letters or compositions.

Written and Oral English Language Conventions

Identify and correctly use prepositional phrases, appositives, and independent and dependent clauses; use transitions and conjunctions to connect ideas.

Identify and correctly use verbs that are often misused (e.g., lie/ lay, sit/ set, rise/ raise), modifiers, and pronouns.

Use a colon to separate hours and minutes and to introduce a list; use quotation marks around the exact words of a speaker and titles of poems, songs, short stories, and so forth.

Use correct capitalization.

Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly.

Language Arts (continued)

Listening and Speaking Strategies

Identify, analyze, and critique persuasive techniques (e.g., promises, dares, flattery, glittering generalities); identify logical fallacies used in oral presentations and media messages.

Analyze media as sources for information, entertainment, persuasion, interpretation of events, and transmission of culture.

Speaking Applications (Genres and Their Characteristics)

Deliver narrative presentations.

Deliver informative presentations about an important idea, issue, or event.

Deliver oral responses to literature.

Mathematics

Number Sense

Estimate, round, and manipulate very large (e.g., millions) and very small (e.g., thousandths) numbers.

Interpret percents as a part of a hundred; find decimal and percent equivalents for common fractions and explain why they represent the same value; compute a given percent of a whole number.

Understand and compute positive integer powers of nonnegative integers; compute examples as repeated multiplication.

Determine the prime factors of all numbers through 50 and write the numbers as the product of their prime factors by using exponents to show multiples of a factor (e.g., $24 = 2 \times 2 \times 2 \times 3 = 2^3 \times 3$).

Identify and represent on a number line decimals, fractions, mixed numbers, and positive and negative integers.

Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.

Demonstrate proficiency with division, including division with positive decimals and long division with multi-digit divisors.

Solve simple problems, including ones arising in concrete situations, involving the addition and subtraction of fractions and mixed numbers (like and unlike denominators of 20 or less), and express answers in the simplest form.

Understand the concept of multiplication and division of fractions.

Compute and perform simple multiplication and division of fractions and apply these procedures to solving problems.

Algebra and Functions

Use information taken from a graph or equation to answer questions about a problem situation.

Use a letter to represent an unknown number; write and evaluate simple algebraic expressions in one variable by substitution.

Know and use the distributive property in equations and expressions with variables.

Identify and graph ordered pairs in the four quadrants of the coordinate plane.

Solve problems involving linear functions with integer values; write the equation; and graph the resulting ordered pairs of integers on a grid.

Measurement and Geometry

Students understand and compute the volumes and areas of simple objects:

Derive and use the formula for the area of a triangle and of a parallelogram by comparing it with the formula for the area of a rectangle (i.e., two of the same triangles make a parallelogram with twice the area; a parallelogram is compared with a rectangle of the same area by cutting and pasting a right triangle on the parallelogram).

Understand the concept of volume and use the appropriate units in common measuring systems (i.e., cubic centimeter [cm³], cubic meter [m³], cubic inch [in³], cubic yard [yd³]) to compute the volume of rectangular solids.

Differentiate between, and use appropriate units of measures for, two and three-dimensional objects (i.e., find the perimeter, area, volume).

Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, and triangles by using appropriate tools (e.g., straightedge, ruler, compass, protractor, drawing software). Know that the sum of the angles of any triangle is 180° and the sum of the angles of any quadrilateral is 360° and use this information to solve problems.

Statistics, Data Analysis, and Probability

Know the concepts of mean, median, and mode; compute and compare simple examples to show that they may differ.

Organize and display single-variable data in appropriate graphs and representations (e.g., histogram, circle graphs) and explain which types of graphs are appropriate for various data sets.

Identify ordered pairs of data from a graph and interpret the meaning of the data in terms of the situation depicted by the graph.

Know how to write ordered pairs correctly; for example, (x, y).