

ENGLISH LANGUAGE ARTS/READING GRADE FIVE

Fifth grade students read increasingly complex literature. Students use reading, writing, listening, and speaking skills to communicate for different purposes.

WORD ANALYSIS

It is expected that students will:

- apply knowledge of phonics, structural elements, and context clues to determine the meaning of unknown words in text
 - increase vocabulary by expanding knowledge of Greek- and Latin- derived roots, suffixes, and prefixes
- build and apply knowledge of content-specific vocabulary in text to build comprehension
- read a variety of narrative and expository text silently or aloud fluently
 - apply knowledge of word patterns and rules to spell correctly
 - use dictionaries and glossaries to find word origins, pronunciations, and determine the meaning of unknown words

READING STRATEGIES

It is expected that students will:

- select and apply a variety of before-, during-, and after-reading strategies appropriate to audience and purpose to aid comprehension
- use self-correcting strategies during reading to gain meaning from text
- evaluate the effectiveness of reading strategies
 - adjust reading rate based on text type and difficulty

LITERARY TEXT

It is expected that students will:

- identify and describe the main problem or conflict, and explain how it is resolved within the story
- describe a character's motivation
- describe a character's physical and personality traits
- make inferences supported by the text about characters' traits and motivations
- describe the theme
- identify and explain the different points of view an author can use in writing a story
- explain a lesson learned based on events and/or a character's actions
- describe and analyze how an author uses figurative language (simile, metaphor, and personification) in text
- identify words and phrases that reveal an author's tone
- identify examples of irony
- explain the influence of cultures, time periods, and historical events on text
- make and revise predictions based on evidence

ENGLISH LANGUAGE ARTS/READING GRADE FIVE (Continued)

EXPOSITORY TEXTS

It is expected that students will:

- ⦿ identify and use text features to comprehend and interpret information for specific purposes
- ⦿ identify words and phrases that reveal an author's tone and language used for persuasion and propaganda
- ⦿ explain an author's use of figurative language: simile, metaphor, analogies, and personification
- ⦿ describe the importance of sequential and/or chronological order
- ⦿ explain a cause and its effect on events and/or relationships
- ⦿ explain a problem and its solution
- ⦿ follow the development of an author's argument, viewpoint, or perspective
- ⦿ describe the main idea or theme in a text
- ⦿ explain the influence of culture and time periods on text
- ⦿ use information to answer specific questions
- ⦿ make connections to self, other text, and/or the world
- ⦿ make and revise predictions and inferences based on evidence
- ⦿ distinguish between fact and opinion

EFFECTIVE WRITING

It is expected that students will:

- ⦿ use pre-writing strategies appropriate to audience and purpose to choose, explore, narrow, and plan topics for written compositions
- ⦿ write multiple-paragraph papers appropriate to audience and purpose that include an introduction, supporting details, transitions, and a conclusion
- ⦿ revise drafts for audience, purpose, ideas, organization, relevant details, voice, word choice, and sentence fluency
- ⦿ edit for correct internal and external punctuation, capitalization, and spelling
- ⦿ edit for correct word usage: nouns, pronouns, verbs, adjectives, adverbs, subject/verb agreement, verb tenses, pronoun/antecedent agreement, clauses, and phrases
- ⦿ edit for use of complete sentences and for the elimination of sentence fragments and run-ons
- ⦿ prepare a legible draft to share with others

TYPES OF WRITING

It is expected that students will:

- ⦿ write expository essays and compositions that include a beginning, middle, and an end, a thesis statement, topic sentences, supporting details, transitions, and a concluding statement
- ⦿ write persuasive essays and compositions that include a thesis statement and relevant supporting evidence
- ⦿ write narrative/descriptive texts for different audiences and purposes
- ⦿ write responses to both literary and expository texts
- ⦿ summarize literary and expository information

ENGLISH LANGUAGE ARTS/READING GRADE FIVE (Continued)

- ⦿ write a research paper by collecting information from multiple sources
- ⦿ write organized friendly letters, formal letters, thank you letters, and invitations in an appropriate format for specific audience and purpose
 - use expanded vocabulary in writing

LISTENING

It is expected that students will:

- ⦿ listen for a variety of purposes: to gain information, to be entertained, and to understand directions
- ⦿ listen to and evaluate oral communications for content, delivery, point of view, and ideas
- ⦿ listen to and evaluate construction feedback
- ⦿ provide constructive feedback to a speaker
- ⦿ solve problems by identifying, synthesizing, and evaluating data
 - listen to and identify how speaking techniques are used to convey a message
 - follow oral directions to complete a complex task

SPEAKING

It is expected that students will:

- ⦿ select and use appropriate public speaking techniques and apply standard English to communicate ideas
- ⦿ deliver organized presentations that demonstrate a clear viewpoint, follow a logical sequence, and give information
 - give clear and concise directions to complete a task

MATHEMATICS

GRADE FIVE

Fifth grade students develop proficiency in using whole numbers, fractions, and decimals to solve problems. They design surveys and collect, display, and analyze data to draw conclusions and make predictions. Algebraic reasoning develops as students identify, describe, and represent patterns and relationships in the number system. Students use spatial sense and geometric concepts to develop an understanding of the relationship between two- and three-dimensional figures.

NUMBERS, NUMBER SENSE, AND COMPUTATION

It is expected that students will:

- ⊙ identify and use place value positions of whole numbers and decimals to hundredths
- ⊙ add and subtract fractions with like denominators using models, drawings, and numbers
- ⊙ compare fractions with unlike denominators using models and drawings and by finding common denominators
- ⊙ identify, model, and compare improper fractions and mixed numbers
- ⊙ use multiples of 10 to expand knowledge of basic multiplication and division facts
- ⊙ add and subtract decimals
- ⊙ multiply and divide decimals by whole numbers in problems representing practical situations
- ⊙ use order of operations to evaluate expressions with whole numbers
- ⊙ generate and solve addition, subtraction, multiplication, and division problems using whole numbers and decimals in practical situations
 - use estimation strategies in mathematical and practical situations
 - use a variety of appropriate strategies to estimate, compute, and solve mathematical and real-world problems

PATTERNS, FUNCTIONS, AND ALGEBRA

It is expected that students will:

- ⊙ find possible solutions to an inequality involving a variable using whole numbers as a replacement set
- ⊙ solve equations with whole numbers using a variety of methods, including inverse operations, mental math, and guess and check.
- ⊙ complete number sentences with the appropriate words and symbols including (\geq , \leq and \neq)
 - identify, describe, and represent patterns and relationships in the number system, including triangular numbers and perfect squares

MEASUREMENT

It is expected that students will:

- ⊙ estimate and convert units of measure for weight and volume/capacity within the same measurement system (customary and metric)
- ⊙ determine totals, differences, and change due for monetary amounts in practical situations

MATHEMATICS GRADE FIVE (Continued)

- ⊙ determine equivalent periods of time, including relationships between and among seconds, minutes, hours, days, months, and years
- ⊙ describe the difference between perimeter and area, including the difference in units of measure

SPATIAL RELATIONSHIPS, GEOMETRY, AND LOGIC

It is expected that students will:

- ⊙ graph coordinates representing geometric shapes in the first quadrant
- ⊙ predict and describe the effects of combining, dividing, and changing shapes into other shapes
- ⊙ identify, classify, compare, and draw triangles and quadrilaterals based on their properties
- ⊙ identify and draw circles and parts of circles describing the relationships between the various parts
- ⊙ represent relationships using Venn diagrams
- describe characteristics of right, acute, obtuse, scalene, equilateral, and isosceles triangles
- identify, define, draw, and describe points, line segments, rays, and angles
- ⊙ identify, draw, label, and describe planes, parallel lines, intersecting lines, and perpendicular lines
- ⊙ represent concepts of congruency, similarity, and/or symmetry using a variety of methods including dilation (enlargement/reduction) and transformational motions

DATA ANALYSIS

It is expected that students will:

- ⊙ pose questions that can be used to guide the collection of categorical and numerical data
- ⊙ organize and represent data using a variety of graphical representations including stem-and-leaf plots and histograms
- ⊙ compute range
- ⊙ model and compute the measures of central tendency for mean, median, and mode
- ⊙ interpret data and make predictions using stem-and-leaf plots and histograms
- ⊙ represent and solve problems involving combinations using a variety of methods
- conduct simple probability experiments using concrete materials
- ⊙ represent the results of simple probability experiments as decimals to make predictions about future events
- ⊙ select an appropriate type of graph to accurately represent the data and justify the selection

PROBLEM SOLVING

It is expected that students will:

- select, modify, develop, apply, and justify strategies to solve a variety of mathematical and practical problems and to investigate and understand mathematical concepts
- apply previous experience and strategies to new problem situations
- ⊙ determine an efficient strategy, verify, interpret, and evaluate results with respect to the original problem
- ⊙ try more than one strategy when the first strategy proves to be unproductive
- ⊙ generalize solutions and strategies to new problem situations

MATHEMATICS GRADE FIVE (Continued)

- ⦿ interpret and solve a variety of mathematical problems by paraphrasing, identifying necessary and extraneous information, and ensuring the answer is reasonable
- ⦿ use technology, including calculators, to investigate and describe relationships such as patterns and functions, to develop mathematical concepts and solve problems

MATHEMATICAL COMMUNICATION

It is expected that students will:

- discuss and exchange ideas about mathematics as a part of learning
- ⦿ use inquiry techniques (discussion, questioning, research, data gathering) to solve mathematical problems
- ⦿ identify and translate key words and phrases that imply mathematical operations
- ⦿ use a variety of methods (physical materials, diagrams, and tables) to represent and communicate mathematical ideas through oral, verbal, and written formats
- use mathematical words, phrases, and symbols to communicate and explain mathematical situations

MATHEMATICAL REASONING

It is expected that students will:

- ⦿ justify and explain the solutions to problems using manipulatives and physical models
- ⦿ use patterns and relationships to analyze mathematical situations and draw logical conclusions about mathematical problems
- ⦿ follow a logical argument and judge its validity
 - ask questions to reflect on, clarify, and extend thinking
- ⦿ review and refine the assumptions and steps used to derive conclusions in mathematical arguments
 - determine relevant, irrelevant, and/or sufficient information to solve mathematical problems

MATHEMATICAL CONNECTIONS

It is expected that students will:

- link new concepts to prior knowledge
- ⦿ use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics
- ⦿ use physical models to explain the relationship of concepts to procedures
- ⦿ apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as rhythm in music and motion in science
- approach problems with flexibility in a variety of ways within and beyond the field of mathematics
- ⦿ identify, explain, and use mathematics in everyday life

SCIENCE GRADE FIVE

Fifth-grade students ask questions and work collaboratively to develop investigations that provide answers. They look at the work of scientists in various careers. They investigate energy and matter, environments, landforms, and resources. They keep ongoing records of their investigations, data, variables, and evidence. They justify statements, predictions, and explanations with evidence. Nature and History of Science objectives are embedded throughout the year in the contexts of life, earth, and physical science.

NATURE OF SCIENCE

It is expected that students will:

- use evidence recorded in a science notebook to develop descriptions, models, explanations, and predictions
- ⊙ determine if an investigation was a fair test
- replicate investigations conducted by others and compare results
- ⊙ draw conclusions from scientific evidence
- create and use labeled illustrations, graphs (tables, line plots, stem and leaf plots, scatter plots, histograms), and charts to convey ideas and record observations
- ⊙ design and conduct safe investigations with a partner and with a small group, based on self-generated questions
- ⊙ use models to explain how something works or how something is constructed (stream table, terrarium, map, globe)
- ⊙ explain that all people can contribute to scientific knowledge and discovery
 - cooperate and contribute ideas within a group
- ⊙ investigate observable patterns that can be used to organize items and ideas and use these patterns to make predictions
- ⊙ make predictions from tables, charts, and graphs of data

PHYSICAL SCIENCE

It is expected that students will:

- ⊙ investigate and describe how energy can be used to bring about changes in matter
- ⊙ classify materials by their observable, physical, and chemical properties
- ⊙ investigate and describe that by combining two or more materials, the properties of the resulting material can be different from the original materials (vinegar and baking soda, drink mix, salt and water, trail mix)
- ⊙ investigate and describe that the total mass of a material remains constant whether it is together, in parts, or in a different state
- ⊙ observe and describe that materials may be composed of parts that are too small to be seen without magnification
- ⊙ describe how unbalanced forces (a push or pull) cause objects to change their motion (speed, direction, or both)

SCIENCE GRADE FIVE (Continued)

- ⊙ describe how the strength of a force and the mass of an object influence the amount of change in an object's motion
- ⊙ explain that objects move towards the Earth when they are released in the air or on ramps

EARTH SCIENCE

It is expected that students will:

- ⊙ explain that the Sun is the main source of the various kinds of energy used on Earth
- ⊙ investigate and describe various meteorological phenomena (flooding, snowstorms, thunderstorms, and drought)
- ⊙ describe air as a substance that surrounds us, takes up space, and moves around us as wind
- ⊙ investigate and describe how fossils are evidence of past life
- ⊙ compare and contrast the kinds of landforms
- ⊙ investigate and describe how change is an ongoing process that can be seen throughout the natural world
 - differentiate between renewable and nonrenewable resources
- ⊙ investigate and describe how erosion and deposition rates can be affected by the slope of the land and by human activities
 - describe the positive and negative impacts of technologies (dams, agriculture) on society and the environment

LIFE SCIENCE

It is expected that students will:

- investigate and describe how plants and animals require food, water, air, and space
- ⊙ explain how the sun's energy is the primary source of energy for most ecosystems and moves through food webs
 - explain that living things get what they need to survive from their environments
- ⊙ investigate and describe the interaction of organisms with each other and with the non-living parts of their ecosystem
- ⊙ investigate and describe how organisms, including humans, can cause changes in their environments
 - investigate and describe how environmental changes allow some plants and animals to survive and reproduce, but others may die
- ⊙ investigate and describe why, for any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all
- ⊙ explain how differences among individuals within a species give them advantages and/or disadvantages in surviving and reproducing
- ⊙ investigate and describe how some environmental conditions are more favorable than others to living things
- ⊙ investigate, compare and contrast the different structures of organisms that serve different functions for growth, reproduction, and survival

SOCIAL STUDIES GRADE FIVE

Fifth grade students study the development of the nation through Westward Expansion. The focus of study begins with the native inhabitants of the Americans through the building and expansion of our nation. They examine the impact of Constitutional issues on American society by studying the ideas, documents, and events that were critical to building the foundations of American democracy. Students explain how different regions of the United States offer specific resources and income opportunities for people.

HISTORY

It is expected that students will:

- identify and describe Native North American life and cultural regions prior to European contact
- identify and describe the attributes of Native American nations in the local region and North America
- discuss the interactions of early explorers with native cultures
- identify the contributions of Native Americans, Europeans, and Africans to North American beliefs and traditions
- describe the social, political, and religious lives of people in the New England, Middle, and Southern colonies
- identify individuals and groups responsible for founding and settling the American colonies
- examine the cultural exchange among the Native Americans, Europeans, and Africans
- describe motivations for and expeditions of European exploration of the Americas
- describe issues of compromise and conflict within the United States
- describe the competition among the English, French, Spanish, Dutch, and Indian nations for control of North America
- explain why slavery was introduced into colonial America
- explain how the interactions among Native Americans, Africans, and Europeans, during colonial America resulted in unique economic, social, and political institutions
- identify the events that led to the Declaration of Independence
- identify the causes, key events, and people of the American Revolution
- explain the relationship between the American colonies and England, and discuss its impact on independence
- compare and/or contrast the daily lives of children throughout the United States, both past and present
- recognize that communities include people who have diverse ethnic origins, customs, and traditions, and who make contributions to the United States
- describe ways individuals display social responsibility
- explain how technologies in United States history changed the way people lived
- provide and discuss major news events on local, state, national, and world levels

SOCIAL STUDIES GRADE FIVE (Continued)

- discuss the economic, political, and cultural relationships the United States has with other countries

GEOGRAPHY

It is expected that students will:

- identify and locate major geographic features in Nevada and the United States using maps and map elements
- identify spatial patterns of the United States
- describe purposes for different types of maps and globes, i.e., topographical, political, physical
- construct maps, graphs, and charts to display information about human and physical features in the United States
- identify the purpose and content of various United States maps
- derive geographic information from photographs, maps, graphs, books, and technological resources
- provide examples of human-environment interactions in the United States
- identify United States regions in which historical events occurred, i.e., thirteen colonies, Underground Railroad, and California gold fields
- provide examples of cultural identity in communities or regions from different perspectives
- show how regional change in the United States from decade to decade has affected characteristics of place, i.e., salt and sand used to melt ice, flood basins, levees
- label a map of the United States with their capitals
- define absolute location
- explain differences in population distribution within the United States
- list push-pull factors influencing human migration and settlement in the United States
- describe differences among rural, suburban, and urban settlement in the United States
- describe historical and current economic issues in the United States using geographic resources, i.e., illustrate demographic changes due to mining and gaming
- describe why types of organizations may differ by geographic region in the United States
- describe ways physical environments affect human activity in the United States using historical and contemporary examples
- describe how technologies altered the physical environment in the United States, and the effects of those changes on its people
- explore the impact of human modification of the United States' physical environment on the people who live there
- identify and locate potential natural hazards in the United States and their impacts on the land and population
- describe and compare the distribution patterns and use of natural resources in the United States

SOCIAL STUDIES GRADE FIVE (Continued)

ECONOMICS

It is expected that students will:

- describe how scarcity requires a person to make a choice and identify costs associated with that choice
- demonstrate an understanding that an individual can be a consumer and producer at the same time
- identify the resources needed for production in households, schools, and community groups
- describe how income reflects choices people make about education, training, skill development, lifestyle, and careers
- demonstrate an understanding of supply and demand in a market
- define trade and commodities used in trade
- identify how interest rates affect borrowing, saving, and purchasing using credit
- identify services offered by different types of financial institutions
- illustrate how one person's spending becomes another person's income
- recognize the three types of productive resources
- define inflation and deflation
- define labor force and unemployment
- demonstrate per capita measures in the classroom
- explain the purposes for establishing for-profit and not-for-profit organizations
- provide an example of how purchasing a tool or acquiring education can increase the ability to produce goods
- describe the steps an entrepreneur would take to start a business
- explain why specialization increases productivity and interdependence
- describe what it means to compete, and give examples of ways sellers compete
- define mercantilism
- identify scarce resources and identify how they are allocated in the United States
- explain why the United States imports and exports goods
- define exchange rates
- define globalization and explain how the United States economy is affected by international trade

CIVICS

It is expected that students will:

- explain that the Declaration of Independence, the United States Constitution, and the Bill of Rights, are written documents that are the foundation of the United States government
- describe the operation of representative government
- describe the criteria for United States citizenship
- explain the symbolic importance of the Pledge of Allegiance and the Fourth of July
- describe examples of national, state, and local laws
- identify the three branches of government (as set forth in the United States Constitution)

SOCIAL STUDIES GRADE FIVE (Continued)

- name the two houses of the United States Congress and explain how representation is determined
- identify the powers of the United States Congress, i.e., power to tax, declare war, and impeach the President
- identify the duties of the President within the executive branch
- explain that the United States Supreme Court is the highest court in the land
- describe the purpose of a judge and jury in a trial as it relates to resolving disputes
- explain the qualities of a leadership
- name the two major political parties
- give examples of national interest groups
- compare sources of information people use to form an opinion
- define propaganda and give examples
- describe the influences other nations have had on the development of the United States political system