

ENGLISH LANGUAGE ARTS/READING

GRADE FOUR

Fourth grade students independently acquire meaning by expanding communication skills. Students use reading, writing, listening, and speaking to communicate in an organized and clear manner.

WORD ANALYSIS - PHONICS/STRUCTURAL ANALYSIS, VOCABULARY, SPELLING

It is expected that students will:

- ⦿ use knowledge of phonics, structural elements, and syntax to read and to determine the meaning of unfamiliar words in context
- ⦿ identify and use knowledge of common Greek- and Latin- derived roots and affixes to determine the meaning of words in context
- ⦿ use dictionaries and glossaries to determine the meanings and other features of unknown words and derivations of words
- ⦿ use knowledge of vocabulary and context clues to determine meanings of unknown words
 - use patterns to spell correctly
 - use structure rules to spell correctly
 - use spelling strategies to spell correctly

READING COMPREHENSION - SKILLS AND STRATEGIES

It is expected that students will:

- ⦿ use graphic organizers to access prior knowledge, predict, preview, and set a purpose to aid comprehension
 - select and use self-correcting strategies to gain meaning from text
 - apply skills and strategies to aid comprehension
 - use note taking, outlining, summarizing, and other graphic organizers to organize and understand information from text
 - adjust reading rate to suit difficulty and type of text
- ⦿ read narrative and expository texts aloud with fluency
- ⦿ apply strategies of summarizing and drawing conclusions

READING COMPREHENSION - LITERATURE

It is expected that students will:

- ⦿ use knowledge of character, setting, plot, conflict, and resolution to comprehend a variety of works
- ⦿ make inferences about and compare characters' traits using text for verification
 - identify a historical event or cultural influence as portrayed in literature
- ⦿ identify explicit and implied themes in a variety of reading selections
- ⦿ locate figurative language, including simile, metaphor, and personification in text
- ⦿ read and identify the structures of a variety of selections

ENGLISH LANGUAGE ARTS/READING GRADE FOUR (Continued)

- demonstrate an active interest in reading
- make predictions about conflicts and resolutions

READING COMPREHENSION - INFORMATIONAL TEXTS

It is expected that students will:

- ⊙ use information to comprehend text (titles, table of contents, chapter headings, glossaries, indexes, diagrams, and charts)
- ⊙ identify and compare main ideas and important concepts of various texts
- ⊙ develop hypotheses based upon prior knowledge and information from a text
- ⊙ interpret information in new contexts
- ⊙ make inferences/draw conclusions about texts and support them with evidence from a variety of sources
 - identify authors' purposes for writing
- ⊙ read and follow multi-step directions to complete a task

WRITING - COMPOSITION

It is expected that students will:

- ⊙ write informative papers with a clear focus using a variety of sources
- ⊙ write organized friendly letters, formal letters, thank you letters, and invitations in an appropriate format for a specific audience and purpose
 - write a narrative or story that moves through a logical sequence of events, provides insight into why the incident is notable, and includes details to develop the plot, characters, and setting
 - write responses with supporting details to literary selections
- ⊙ write compositions with a main idea and supporting details
 - write short expository texts with supporting details
 - use expanded vocabulary in writing

WRITING - PROCESS

It is expected that students will:

- generate ideas for writing through individual activities such as brainstorming and clustering
- ⊙ organize ideas through activities that draw upon sequencing and classifying skills such as listing, webbing, and mapping
- ⊙ write compositions of at least one paragraph with a main idea and supporting details
 - revise drafts to improve meaning and focus of writing by adding and deleting words and sentences
 - edit for use of standard English
 - produce writing with voice and purpose for an intended audience
 - share drafts with others and make revisions based upon written responses

WRITING - CONVENTIONS OF ENGLISH LANGUAGE

It is expected that students will:

- ⊙ identify and correctly use grammar in writing simple, compound, and complex sentences

ENGLISH LANGUAGE ARTS/READING GRADE FOUR (Continued)

- ⊙ write compound and complex sentences
- ⊙ use correct punctuation in a variety of works
- ⊙ use irregular and plural possessives
- ⊙ use rules of capitalization
- ⊙ identify correct word order in sentences
- ⊙ correct run-on sentences
- ⊙ use correct spelling of frequently used words
 - create readable and legible compositions

LISTENING SKILLS

It is expected that students will:

- ⊙ interpret speakers' verbal and non-verbal messages and distinguish fact from opinion
 - listen to identify how speaking techniques are used to convey a message
 - identify language and dialect usage that vary in different contexts, regions, and cultures
- ⊙ follow oral directions to complete a complex task

SPEAKING SKILLS

It is expected that students will:

- select and use varied vocabulary and apply standard English to communicate ideas
- select and use appropriate public speaking techniques
- ⊙ give organized presentations that demonstrate a clear viewpoint
- read aloud and recite literary, dramatic, and original works
- ⊙ give clear and concise directions to complete a task

DISCUSSION

It is expected that students will:

- contribute to and listen attentively in conversations and group discussions
- ⊙ ask and answer questions with relevant details to clarify ideas
- share ideas, opinions, and information clearly and effectively
- ⊙ identify and express opinions and state facts

RESEARCH AND STUDY SKILLS

It is expected that students will:

- formulate research questions and establish a focus and purpose for inquiry
- use a variety of library resources, media, and technology to find information on a topic
- list sources used in research
- ⊙ organize and record information using note-taking from print and non-print resources
- present research findings for different purposes and audiences using various media
- use test-taking strategies

MATHEMATICS

GRADE FOUR

Fourth grade students extend their learning of multiplication and division of whole numbers. They solve problems which involve addition and subtraction of fractions and decimals. Students also refine their estimation skills and solve problems involving geometric figures, probability, and measurement.

NUMBERS, NUMBER SENSE, AND COMPUTATION

It is expected that students will:

- ⊙ read, write, order, and compare whole numbers (0-999,999)
 - explain relative size (magnitude) of numbers using powers of ten (hundreds and thousands) as benchmarks
- ⊙ use estimation to determine the reasonableness of answers
- ⊙ use and identify place value positions of whole numbers up to 100,000
- ⊙ use subtraction to model and explain division
 - describe the relationships of operations (addition, subtraction, multiplication, and division)
 - describe and use the processes and properties of addition, subtraction, multiplication, and division, including correct notations and related words
- ⊙ identify and compare fractions with like denominators, using numbers, models, and drawings
- ⊙ compare fractions with like denominators
- ⊙ immediately recall and use multiplication and corresponding division facts through the 12's
- describe and use algorithms for addition, subtraction, multiplication, and division
- ⊙ add and subtract multi-digit numbers, with and without regrouping
 - multiply by multiples of ten or a hundred
- ⊙ multiply multi-digit numbers by one-digit numbers, with regrouping
 - multiply a two- or three-digit number by a two-digit number, with and without regrouping
 - divide multiples of ten or one hundred by multiples of ten
- ⊙ divide a two- or three-digit number by a one-digit number, with or without a remainder
 - add and subtract decimals
- ⊙ multiply and divide money amounts by a one-digit whole number producing a solution with no remainder
- ⊙ generate and solve two-step addition and subtraction, multiplication, and division problems, using pencil and paper, mental computation, and estimation
 - use estimation and mental computation in appropriate situations to solve problems
 - 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:

- ⊙ use and interpret operational and relational symbols

MATHEMATICS GRADE FOUR (Continued)

- analyze, describe, create, and extend patterns using numbers, appropriate tables, and calculators
- ⊙ identify, describe, and represent numeric and geometric patterns and relationships
- ⊙ find solutions to given equations from a given replacement set (e.g., find the solution to $3 \times 7 = \underline{\quad}$, given the replacement set {19, 20, 21})
- ⊙ use variable expressions (open sentences) to model situations

MEASUREMENT

It is expected that students will:

- measure distance, time, temperature, capacity, weight/mass, volume, and area using standard measuring devices (English and metric)
- ⊙ measure and compare length in inches, feet, yards, and miles to the nearest fractional part ($1/4$, $1/2$); convert within this system of measurement
- ⊙ measure and compare lengths in metric units (e.g. millimeter, centimeter, meter, kilometer); convert within metric system of measure
- ⊙ determine totals for monetary amounts in problem-solving situations
- ⊙ describe and determine the perimeter and area of polygons
- ⊙ describe and determine the perimeter and area of rectangles (including squares)
- ⊙ communicate the difference between area and perimeter
- estimate measurements with appropriate precision

SPATIAL SENSE AND GEOMETRY

It is expected that students will:

- describe geometric properties, patterns, and relationships
- ⊙ identify parts of a solid figure (base, face, edge, vertex)
- ⊙ identify, describe, and classify two- and three-dimensional figures by relevant properties including the number of vertices (corners), edges, and the shapes of faces using models
- ⊙ identify, describe, compare, and draw basic geometric figures including points, line segments, rays, angles, intersecting lines, and parallel lines using models
- ⊙ identify, draw, and classify angles including acute, right, obtuse, according to their measurements
- predict, verify, and describe results of combining, subdividing, and changing shapes
- ⊙ represent concepts of similarity, congruence, and symmetry using motion geometry

DATA ANALYSIS

It is expected that students will:

- ⊙ collect, organize, display, describe, and interpret simple data using number lines, pictographs, bar graphs, and frequency tables
- read, interpret, and discuss charts, tables, and graphs from books, newspapers, and magazines
- ⊙ conduct simple probability experiments using concrete materials and represent the results using fractions

MATHEMATICS GRADE FOUR (Continued)

- ⊙ apply probability concepts and counting rules
 - solve problems and make predictions based on collected data

PROBLEM SOLVING

It is expected that students will:

- ⊙ select, modify, develop, and apply strategies to solve a variety of mathematical and practical problems and to investigate and understand mathematical concepts
- ⊙ apply previous experience and knowledge to new problem-solving situations
- ⊙ verify, interpret, and evaluate results with respect to the original problem situation, determining an efficient strategy for the given situation
- ⊙ try more than one strategy when the first strategy proves to be unproductive
 - generalize solutions and strategies from earlier problems to new problem situations
 - interpret and solve a variety of mathematical problems by paraphrasing, identifying necessary and extraneous information, selecting and justifying efficient methods and/or strategies, and ensuring the answer is reasonable
 - use technology, including calculators, to understand quantitative relationships (e.g., for skip counting and pattern exploration)
 - use technology, including calculators, to investigate, define, and describe qualitative relationships such as patterns and functions

MATHEMATICAL COMMUNICATION

It is expected that students will:

- use inquiry techniques (e.g., discussion, questioning, research, data gathering) to solve mathematical problems
- ⊙ identify and translate key words and phrases that imply mathematical operations
- ⊙ use physical materials, diagrams, models, pictures, writing, and tables to represent and then communicate mathematical ideas through oral, verbal, and written formats
- explain and justify thinking about mathematical ideas and solutions
- make conjectures and present arguments in discussions of mathematical ideas
- use everyday language to explain thinking about strategies and solutions to mathematical problems
- express mathematical ideas and use them to define, compare, and solve problems orally and in writing
- use mathematical notation to communicate and explain mathematical situations

MATHEMATICAL REASONING

It is expected that students will:

- ⊙ use patterns and relationships to analyze mathematical situations; draw logical conclusions about mathematical problems
- ⊙ apply deductive and inductive reasoning in mathematical situations to extend logical reasoning

MATHEMATICS GRADE FOUR (Continued)

- ask questions to reflect on, clarify, and extend thinking
- ⊙ 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 models to explain the relationship of concepts to procedures
- identify practical applications of mathematical principles that can be applied to other disciplines
- apply mathematical thinking and modeling to solve problems that arise in other disciplines (e.g., rhythm in music and motion in science)
- identify, explain, and use mathematics in everyday life

SCIENCE

GRADE FOUR

Fourth-grade students deepen their science observation, record-keeping, and collaborative skills as they explore water, the water cycle, human body systems, and electricity and magnetism. They study the contributions of scientists and experience the process of inventing. Observations and predictions about our Solar System, the Sun, and the Moon are made. Nature and History of Science objectives are embedded throughout the year in the contexts of life, earth, and physical science.

NATURE AND HISTORY OF SCIENCE

It is expected that students will:

- generate investigable questions based on observations and interactions with objects, organisms, and phenomena
- use science notebook entries to develop, communicate, and justify descriptions, explanations, and predictions
- create and use labeled illustrations, graphs (number lines, frequency charts, bar graphs, pictographs), and charts to convey ideas and record observations
- conduct safe investigations with a partner and with a small group
- identify, gather, and safely use tools (magnets, thermometer, lens) and materials needed for investigations
- compare a model with what it represents (solar system, electrical circuit, human body models)
- explain that many people have contributed to scientific knowledge
- compare the advantages and disadvantages of using technology (electricity, microscope, telescope)
- cooperate and contribute ideas within a group
- identify observable patterns to organize items and make predictions

PHYSICAL SCIENCE

It is expected that students will:

- investigate and describe the way that magnets attract and repel each other and certain kinds of other materials
- investigate and describe that electrically charged particles can attract or repel other electrically-charged material (static electricity)
- describe light in terms of simple properties (color, brightness)
- investigate and explain that light is usually associated with heat
- describe how heat can move from one object to another by conduction, and some materials conduct heat better than others
- investigate, construct, and describe simple electrical circuits

SCIENCE GRADE FOUR (Continued)

EARTH SCIENCE

It is expected that students will:

- investigate and describe the properties, forms, and uses of water
- investigate and describe the water cycle
- investigate and describe the factors that affect processes such as evaporation and condensation
- investigate and explain that water can be a liquid or a solid and can go back and forth from one form to another
- investigate and describe how the earth is nearly spherical and covered with more water than land
- investigate and describe how distance affects the brightness of a light source (stars)
- identify the sun as a star
- describe how the stars in the sky are not scattered evenly, and they are not all the same in brightness or color
- describe how the components of our Solar System (planets, moon, sun), as well as constellations, appear to move through the sky
- explain that stars look small because they are extremely far away

LIFE SCIENCE

It is expected that students will:

- compare learned and inherited behaviors in animals
- observe and describe variations among individuals within the human population
- explain that if germs are able to get inside one's body, they may keep it from working properly
- explain that the human body is composed of systems of structures that work together so the body can grow, reproduce and survive

SOCIAL STUDIES

GRADE FOUR

Fourth grade students study the history and geography of Nevada. They learn about regions of the United States and develop an understanding of government.

CIVICS

It is expected that students will:

- describe the effects on society of the presence and absence of law
- identify the Supreme Court as the highest court in the land
- list the qualities of a leader
- identify ways conflicts can be resolved in a peaceful manner that respects individual rights
- explain why and how local governments are created within states
- name the three branches of state government
- describe the purposes of democratic government
- discuss components of the democratic election process
- identify the Constitution as the fundamental law of the land
- identify the three levels of American government: federal, state, and local
- name the head of the federal, state, and local government (e.g., President, Governor, Mayor)
- complete tasks independently
- work cooperatively in groups
- recognize differences of opinion
- evaluate the causes of issues and problems
- recognize the role of mediation in problem resolution
- recognize the role/duties of various civil servants (e.g., police, lawyers, military personnel)
- identify the purpose of the court system

ECONOMICS

It is expected that students will:

- define employment and unemployment
- identify financial institutions
- identify the rewards and risks of saving money in financial institutions
- give examples of purchases made using credit
- identify factors within an individual's control that can affect the likelihood of being employed
- provide an example of how purchasing a tool or acquiring education can be an investment
- describe the characteristics of an entrepreneur
- describe the steps an entrepreneur would take to start a business
- give examples of ways sellers compete
- describe how the exchange of goods and services around the world creates interdependence among people in different places
- describe basic economic concepts: supply, demand, production

SOCIAL STUDIES GRADE FOUR (Continued)

- describe employment as a source of income
- describe the economic activities of Nevada (e.g., mining, tourism)
- discuss types of industry in Nevada
- compare job opportunities available in rural, suburban, and urban areas of Nevada

GEOGRAPHY

It is expected that students will:

- identify and use intermediate directions on a compass rose to locate places on a map
- compare the information found on different maps of Nevada (e.g., physical, political, historical)
- gather geographic information from electronic sources
- use maps, photographs, and graphs of Nevada to collect geographic information
- construct a map of Nevada displaying its human and physical features
- identify the purpose and content of various Nevada maps
- identify and explain spatial patterns on a map of Nevada
- recognize that states are divided into counties or their equivalents and identify the county of residence in Nevada
- locate and name the major mountains, rivers, and lakes on a map of the United States
- list examples of physical and human features from the community or region
- recognize and illustrate elements of their culture
- describe the characteristics of another culture from their point of view
- compare how communities use different types of technology
- choose an historical figure and locate the place and region on which he/she had an impact
- give examples of how places where they have lived have changed in their lifetime
- recognize the difference between a physical and a cultural region
- diagram and explain the water cycle
- describe the effects of various natural hazards on the physical environment
- generate examples of various ecosystems found in Nevada and the United States
- explain the location and distribution of a specific ecosystem in Nevada and the United States
- construct a model of an ecosystem
- define and illustrate population density
- list reasons why people move to or from a particular place
- describe changes in how people move from one place to another
- locate and list examples of rural, suburban, and urban communities
- compile a list of where goods and services are produced
- describe that the availability and price of an economic product is affected by geography
- compare housing, health care, and education among regions in Nevada or the United States
- classify organizations as cultural, political, or economic organizations, depending on their major function
- describe how cooperation and conflict affect people in different communities

SOCIAL STUDIES GRADE FOUR (Continued)

- describe a change that has taken place in their local environment
- describe places in Nevada where the physical environment has been altered by technology
- use maps or photographs to document human modification of the physical environment
- identify various natural resources found in Nevada and the western United States
- list examples of how people use and manage natural resources within Nevada
- describe the physical setting of an historical event
- describe the physical setting of a current event
- describe a contemporary issue from a spatial or ecological perspective
- choose an environmental problem that affects Nevada and develop possible solutions
- develop questions that will aid in the identification of spatial patterns
- evaluate geographic information and select a method for display
- locate and summarize geographic information from a variety of geographic sources
- incorporate a visual display into a report about a geographic topic
- identify and describe geographic regions of the world by referencing lines of latitude and longitude
- use scales on maps to determine distances portrayed

HISTORY

It is expected that students will:

- record events on a graphic organizer, such as a calendar or time line
- locate Nevada's earliest Native American inhabitants, known as the Desert Archaic people
- identify Nevada's Native American cultures
- describe experiences of pioneers moving west, including: Donner Party, Oregon/California Trails
- identify explorers and settlers in preterritorial Nevada, including: Kit Carson, John C. Fremont
- explain the symbols, mottoes, and slogans related to Nevada, including: "Battle Born," state seal, Silver State, state flag
- recognize the ongoing nature of history (e.g., migration, human settlement, demographic)
- describe important historical people, events, and places in Nevada
- create timelines that show people and events in sequence using months, years, decades, and centuries
- recognize famous people in Nevada's history
- discuss how and why people from various cultures immigrated and migrated to the American West
- read historical passages and interpret details
- identify appropriate resources for historical information