



FOURTH GRADE CURRICULUM

The fourth grade theme is an examination of culture through the history of California. Specifically, students study the history of California paying attention to geography, statehood, economy both local and statewide, and our state's possible future.. This work integrates most of the elements of the fourth grade curriculum: Social studies, language arts, science, art and music. The theme provides a meaningful context in which students develop their fourth grade skills/concepts while learning about the elements of California, what it's culture is, how it's cultures change, and the importance of understanding other cultures.

OVERVIEW

The history of California is rich with ethnic, social, and cultural diversity; economic energy; geographic variety; and growing civic community. The study of California history in the fourth grade provides students with foundational opportunities to learn in depth about their state, including the people who live here, and how to become engaged and responsible citizens. California's history also provides students with the opportunity to develop important language and literacy skills and to learn that history is an exciting, investigative discipline. As students participate in investigations about the past, they will learn to identify primary sources, understand them as a product of their time and perspective, and put them in a comparative context. Students will also learn to make claims (through writing and speaking) about sources and how to use textual evidence to support a claim.

LANGUAGE ARTS

Language Arts is integrated into all areas of the curriculum. Students develop their communication skills in reading, writing, speaking and listening, so they can receive information and express themselves as clearly as possible.

READING

We help children to become involved readers of high-interest materials wherever and whenever they read. Material in the reading program is often related to the theme. Students also read high-interest trade/chapter books for direct reading instruction.

Skills

- Choose and read books independently
- Develop rich, descriptive vocabulary
- Learn new vocabulary
- Apply decoding skills
- Read with oral fluency and expression
- Literal comprehension:
 - Find the main idea
 - Read for detail

- Sequence events in a story
- Summarize
- Inferential comprehension:
 - Understand character and motivation
 - Identify cause and effect
 - Find supporting material in text to verify conclusions
 - Predict Outcomes
- Perceive patterns in literature
- Use the dictionary effectively; use guidewords to locate words
- Scan for information
- Critical thinking skills
- Formulate literal, inferential, and critical thinking questions
- Practice active reading strategies

WRITING

Personal experiences, poetry, expository paragraphs, formal letters, research reports, and general fiction make up a fourth grader's writing experiences. Students use the writing process (including brainstorming, planning, drafting, revising, editing, publishing) throughout the year.

Skills

Composition

- Plan a story; show basic understanding of story structure
- Edit for capital letters, punctuation, spelling, and organization
- Revise
- Research
- Understand sentence structure
- Write to a given form
- Organize into paragraphs with a topic sentence, supporting details, and concluding sentence
- Draft
- Proofread
- Analyze writing and provide constructive feedback
- Paraphrase

Conventions (grammar and mechanics)

- Recognize elements of phonetic patterns
- Memorize non-phonetic words and spelling rules
- Apply skills of capitalization and punctuation
- Identify parts of speech: Nouns, verbs, adjectives, adverbs, pronouns
- Understand prefix, suffix, synonyms, antonyms, and homophones
- Master high-frequency words
- Keyboarding
- Identify poetic devices: Simile, metaphor, onomatopoeia, alliteration, hyperbole
- Basic cursive (read and write)

MATHEMATICS

Fourth grade students expand their understanding of the field of mathematics to include both computational and non-computational skills/concepts. The focus is on helping students develop a firmer foundation of place value, number sense, and strategies to help solve a variety of problems, rather than on rote memorization and procedure. We explore the concepts of multiplication, division, real-life problems, measurement, data interpretation, logical reasoning, area, perimeter, as well as the visual-spatial aspects of mathematics. Math lessons revolve around real data, number patterns, and discovery through exploration. Students are encouraged to solve increasingly challenging problems using what they know, as well as to appreciate that there are differing methods of approaching and solving problems. Through these experiences, students begin to develop an appreciation of mathematics as encompassing far more than mathematical computations.

Skills

Number

- Estimation and rounding numbers
- Read and write numbers to one million
- Identify place value to one billion
- Count by 100s, 1000s, 10,000s, 100,000s
- Sequence numbers using +, <, and >
- Add and subtract whole numbers and fractions
- Two-digit multiplication
- Factors
- Multiplication by multiples and powers of 10
- Division facts and division by multiples and powers of 10
- Solve mental math problems
- Solve for missing elements in an equation
- Prepare and solve word problems
- Recognize prime and composite numbers

Relationships

- Understand and extend number patterns
- Collect data and prepare graphs
- Use equalities and inequalities
- Understand fractional equivalents
- Understand fraction and decimal notation
- Square numbers

Measurement

- Length, area with formula, money
- Metric system

Geometry

- Understand two- and three-dimensional geometric shapes
- Study triangles and other polygons
- Study types of angles (right, acute, obtuse)
- Explore perimeters and areas of figures
- Coordinate graphing of collected data

SCIENCE

The science curriculum connects to the theme through units on archaeology, paleontology, and constellations. Fourth graders collect data from close observations and compare and contrast this information as they begin to draw conclusions. Each child keeps a journal of experiments and vocabulary throughout the year, which they bring home at the conclusion of their studies. Science class includes work in our Wetlands Lab, our simulated archeological dig site, dissection, and exciting visits from a number of guests.

Units

- Our brain: What makes up our brain, how culture has affected/shaped cognition, functions of the brain
- Archaeology & paleontology
- Constellations, moon phases, solar energy
- Owl pellet dissections
- Wetland study: Water cycle, wetland role in water filtration

Skills

- Ask questions & define problems
- Hypothesize
- Develop and use models to describe, represent or simulate a phenomena
- Plan & carry out investigations
- Compare/contrast
- Collect Data
- Categorize
- Analyze and interpret data
- Use mathematical and computational thinking
- Construct explanations and design solutions to a problem
- Communicate information orally/in writing

ART

The fourth grade art program integrates studio projects with classroom themes of California and also advances independent art projects outside of the themes. For example, while studying California, students will create a geographical representation of their topic, while outside of the areas of thematic study, they create a cover for the book that they author later in the year.

Skills & Activities

- Create animated letter designs based on initials
- Construct a 3D version of a letter using styrofoam and papier mache
- Design/create board game based on California stories

TECHNOLOGY

The technology program at Grizzly Hill starts with the why – why should we teach technology at all? The answer is we don't teach "technology;" we teach self-reflection, empathy, and problem solving (know ourselves, understand others, and shape the future). The medium we work within to accomplish this is digital tools, and we teach students both existing skills and how to learn new technology on their own. While the process of learning new tools is inherently valuable (growth mindset, exploration, logic, sequential thinking, curiosity), ultimately we teach technology because of the opportunities it can provide for students to improve themselves and make a positive impact on the world.

In the fourth grade, we focus on introducing online collaboration & publishing, digital citizenship, improving touch typing skills, programming robots to interact with the environment, formal design thinking process, programming for user interactivity, and digital photography

PHYSICAL EDUCATION

The Physical Education program is developmental and skill-based. The program includes cooperative games, standard games, such as Ultimate Frisbee, and team sports including soccer and basketball. Students practice motor and sports skills throughout these activities. Students develop sports skills through movement exploration, specific skill work and playing games.

Developmental Focus

- Develop cooperation, teamwork, and sportsmanship
- Develop body and spatial awareness
- Develop social skills and positive self-image
- Develop the following physical skills

Skills

- Locomotor Movements: Walk, run, hop, slide, jump, crawl, roll
- Non-locomotor movements: Swing, bend, stretch, twist, turn, dodge, push, pull
- Sports skills: Throw, dribble, kick, shoot (basketball), volley

Activities

Soccer, frisbee, kickball, basketball, volleyball, track and field, fitness exercises, relays, cooperative games, group challenges, obstacle courses, lifetime fitness activities

LIBRARY

In fourth grade, the library curriculum furthers students' appreciation and enjoyment of literature and focuses on an in-depth study of the various fiction genres (e.g. fantasy, mystery, realistic fiction and historical fiction). The curriculum also provides students with opportunities to plan a search strategy for information, using print and online reference sources, and to synthesize information to organize and produce new meaning.

Literature Appreciation Skills

- Recognize basic story elements: Plot, setting, character
- Evaluate new books for content and appeal
- Active listening
- Demonstrate awareness of literature from various cultures and genres

Information Literacy Skills

- Identify keywords to find information on a topic
- Continue to analyze fiction versus non-fiction
- Explore and develop understanding of how to gather information, including the use of table of contents, index, and glossary
- Demonstrate the use of print and online dictionaries, encyclopedias, almanacs, and atlases in finding relative information