



Heritage Education Programs

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California Common Core Standards, Next Science Standards and Content Standards Addressed in our *Programs*

Grade 4 Students

Language Arts

Writing Standards

3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences
7. Participate in shared research and writing projects

Speaking and Listening Standards

3. Identify the reasons and evidence a speaker provides to support particular points.
7. Participate in shared research and writing projects on a single topic to produce a report; record science observations).

History

- 4.2.1 . Discuss the major nations of California Indians, including their geographic distribution, economic activities, legends, and religious beliefs; and describe how they depended on, adapted to, and modified the physical environment by cultivation of land and use of sea resources.
- 4.4 Students explain how California became an agricultural and industrial power, tracing the transformation of the California economy and its political and cultural development since the 1850s.
 1. Understand the story and lasting influence of the Pony Express, Overland Mail Service, Western Union, and the building of the transcontinental railroad, including the contributions of Chinese workers to its construction.

Historical and Social Sciences Analysis Skills Kindergarten Through Grade 5 Chronological and Spatial Thinking

2. *Students correctly apply terms related to time, including past, present, future, decade, century, and generation.*
3. *Students explain how the present is connected to the past, identifying both similarities and differences between the two, and how some things change over time and some things stay the same.*
4. *Students use map and globe skills to determine the absolute locations of places and interpret information available through a map's or globe's legend, scale, and symbolic representations.*

Research, Evidence, and Point of View

1. *Students differentiate between primary and secondary sources.*
2. *Students pose relevant questions about events they encounter in historical documents, eyewitness accounts, oral histories, letters, diaries, artifacts, photographs, maps, artworks, and architecture.*

Next Generation Science Standards

4.MD.1 *Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.*

- *Engineers improve existing technologies or develop new ones. (4-PS3-4)*

W.4.2.a–d *Write informative/explanatory texts to examine a topic and convey ideas and information clearly. (4-PS3-1)*

Engineering Problems

Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. (3–5- ETS1-1)

Visual Arts

- 2.8 Use complementary colors in an original composition to show contrast and emphasis.
- 3.2 Identify and discuss the content of works of art in the past and present, focusing on the different cultures that have contributed to California's history and art heritage.
- 4.2 Identify and describe how a person's own cultural context influences individual responses to works of art.
- 4.34.3 Discuss how the subject and selection of media relate to the meaning or purpose of a work of art.

Grade 5 Students**Language Arts****Writing Standards**

3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- 7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

Speaking and Listening Standards

1. Summarize the points a speaker or media source makes and explain how each claim is supported by reasons and evidence,
7. Participate in shared research and writing projects on a single topic to produce a report; record.

Vocabulary Acquisition and Use

6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, (science observations).

Math

Measurement and Data (5.MD)

Convert like measurement units within a given measurement system.

1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problem.

Geometry (5.G)

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

1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).

History–Social Science

5.3 Students describe the cooperation and conflict that existed among the American Indians and between the Indian nations and the new settlers.

5.4 Students understand the political, religious, social, and economic institutions that evolved in the colonial era.

New Generation Science Standards

- **Make observations (firsthand or from media) to collect data that can be used to make comparisons. (1-ESS1-2)**

Planning and Carrying Out Investigations

Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.

- **Plan and conduct investigations collaboratively to produce data to serve as the basis for evidence to answer a question. (1-PS4-1),(1-PS4-3)**

Influence of Engineering, Technology, and Science, on Society and the Natural World

People depend on various technologies in their lives; human life would be very different without technology. (1-PS4-4) K–2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

K–2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

collaboration with peers. (K–2-ETS1-1),(K–2-ETS1-3)

W.2.8 Recall information from experiences or gather information from provided sources to answer a question. (K–2-ETS1-1),(K–2-ETS1-3)

Visual Arts Content Standards

1.2 Visual Arts Discuss works of art as to theme, genre, style, idea, and differences in media.

1.3 Describe how artists can show the same theme by using different media and styles

2.4 Create an expressive abstract composition based on real objects.

3.2 Identify and describe various fine, traditional, and folk arts from historical periods worldwide.

3.4 View selected works of art from a major culture and observe changes in materials and styles over a period of time.

4.2 Compare the different purposes of a specific culture for creating art.

5.2 Identify and design icons, logos, and other graphic devices as symbols for ideas and information. 2.4 Create an expressive abstract composition based on real objects.

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4.2 Compare the different purposes of a specific culture for creating art.

5.2 Identify and design icons, logos, and other graphic devices as symbols for ideas and information.

Grade 6 Students

Language Arts

Speaking and Listening Standards

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 6 topics, texts, and issues*, building on others' ideas and expressing their own clearly.

Math

The Number System

6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.

8. Solve real-world and mathematical problems by graphing points

History

6.1 Students describe what is known through archaeological studies of the early physical and cultural development of humankind from the Paleolithic era to the agricultural revolution.

6.3 Students analyze the geographic, political, economic, religious, and social structures of the Ancient Hebrews.

6.7 Students analyze the geographic, political, economic, religious, and social structures during the development of Rome.

Historical and Social Sciences Analysis Skills Grades Six Through Eight Chronological and Spatial Thinking

3. Students use a variety of maps and documents to identify physical and cultural features of neighborhoods, cities, states, and countries and to explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems.

Research, Evidence, and Point of View

1. Students frame questions that can be answered by historical study and research

2. Students distinguish fact from opinion in historical narratives and stories.

3. Students distinguish relevant from irrelevant information, essential from incidental information, and verifiable from unverifiable information in historical narratives and stories.

4. Students assess the credibility of primary and secondary sources and draw sound conclusions from them.

5. Students detect the different historical points of view on historical events and determine the context in which the historical statements were made (the questions asked, sources used, author's perspectives)

Next Generation Science

- Conduct an investigation to produce data to serve as the basis for evidence that meet the goals of an investigation. (MS-LS1-1)

Science is a Human Endeavor

Scientists and engineers are guided by habits of mind such as intellectual honesty, tolerance of ambiguity, skepticism, and openness to new ideas. (MS-LS1-3)

- Collect data to produce data to serve as the basis for evidence to answer scientific questions or test design solutions under a range of conditions. (MS-ESS2-5)

ESS3.C: Human Impacts on Earth Systems

Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth's environments can have different impacts (negative and positive) for different living things. (MS-ESS3-3)

Influence of Science, Engineering, and Technology on Society and the Natural World

The uses of technologies and any limitations on their use are driven by individual or societal needs, desires, and values; by the findings of scientific research; and by differences in such factors as climate, natural resources, and economic conditions. Thus technology use varies from region to region and over time. (MS-ESS3-3)

Construct, use, and present oral and written arguments supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon

MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

Influence of Science, Engineering, and Technology on Society and the Natural World

- All human activity draws on natural resources and has both short and long-term consequences, positive as well as negative, for the health of people and the natural environment. (MS-ETS1-1)

The uses of technologies and limitations on their use are driven by individual or societal needs, desires, and values; by the findings of scientific research; and by differences in such factors as climate, natural resources, and economic conditions. (MS-ETS1-1)

ETS1.A: Defining and Delimiting Engineering Problems

- The more precisely a design task's criteria and constraints can be defined, the more likely it is that the designed solution will be successful. Specification of constraints includes consideration of scientific principles and other relevant knowledge that are likely to limit possible solutions. (MS-ETS1-1)

ETS1.B: Developing Possible Solutions

- A solution needs to be tested, and then modified on the basis of the test results, in order to improve it. (MS-ETS1-4)
- There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem. (MS-ETS1-2), (MS-ETS1-3)
- Sometimes parts of different solutions can be combined to create a solution that is better than any of its predecessors. (MS-ETS1-3)
- Models of all kinds are important for testing solutions. (MS-ETS1-4)

ETS1.C: Optimizing the Design Solution

- Although one design may not perform the best across all tests, identifying the characteristics of the design that performed the best in each test can provide useful information for the redesign process—that is, some of those characteristics may be incorporated into the new design. (MS-ETS1-3)

The iterative process of testing the most promising solutions and modifying what is proposed on the basis of the test results leads to greater refinement and ultimately to an optimal solution. (MS-ETS1-4)

Visual Arts

3.1 Research and discuss the role of the visual arts in selected periods of history, using a variety of resources (both print and electronic).3.2 View selected works of art from a culture and describe how they have changed or not changed in theme and content over a period of time.

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5.3 Create artwork containing visual metaphors that express the traditions and myths of selected cultures