



## Correlation of Content Standards for California Public Schools at Exploring New Horizons Outdoor Schools

Students who attend an Exploring New Horizons Outdoor School will gain knowledge of science and other curricular areas through experiential education in several ecosystems: marine, redwood, marsh, mixed woodland, chaparral and organic garden. The following are examples of learning opportunities that relate to the California State Content Standards.

### GRADE FIVE SCIENCE CONTENT STANDARDS

#### **Physical Sciences**

1. Elements and their combinations account for all the varied types of matter in the world. (#1)
  - Students know properties of solid, liquid and gaseous substances, such as sugar, water, helium, oxygen, nitrogen and carbon dioxide. Students discuss the biotic and abiotic components that make up an ecosystem. (g)
  - Through observation and discussion students learn that living organisms and most material are composed of just a few elements. (h)

#### **Life Sciences**

1. Plants and animals have structures for respiration, digestion, waste disposal, and transport of minerals. (#2)
  - Students discuss how sugar, water, and minerals are transported in a vascular plant. (e)
  - Students discuss photosynthesis and participate in activities where they assume the roles of plants and the components involved. (f,g)
  - Activities: Meet a Tree, Photosynthesis Theater, Race for the Sun

#### **Earth Sciences**

1. Water on Earth moves between the oceans and land through the process of evaporation and condensation. (#3)
  - Students learn the water cycle through observation, activities and demonstrations at the ocean, marsh, garden and creek. (a,b,c)
  - Students learn that Earth's water is present as salt water in the oceans, which cover most the earth's surface. (a)
  - Students are exposed to the concept of the conservation of water resources as a daily reminder that the amount of fresh water is limited and its availability can be extended through recycling and decreased use. (d)
  - Activities: Water cycle boogie game, Build a water-shed (garden activity), River Song
2. Energy from the sun heats the earth unevenly, causing air movements resulting in changing weather patterns. (#4)
  - Students observe soaring birds using updrafts. (a)
  - Students observe wind patterns of on and off shore breezes and the unique pattern of coastal fog, enforcing the concept of the ocean's influence on weather and the role of the water cycle in weather. (b)
3. The solar system consists of planets and other bodies that orbit the sun in predictable paths. (#5)
  - Students observe the night sky. They differentiate between stars and planets. They discuss the closest star, the sun, and the order of the planets. (a,b)
  - Students observe the moon and discuss why the moon orbits the sun. (c)
  - Lunar cycles are explained and used to discuss high and low tides relative to gravity. (b,c)

## **Investigation and Experimentation**

1. Investigation and experimentation are a focus of state standards at all grade levels. Scientific progress is made by asking meaningful questions and conducting careful investigations. (#6)
  - a. Classify objects
  - b. Develop a testable question
  - c. Plan and conduct a simple investigation...
  - d. Identify the dependent and controlled variables
  - e. Identify a single independent variable...
  - f. Select appropriate tools
  - g. Record data by using appropriate graphic representations
  - h. Draw conclusions
  - i. Write a report

## **GRADE FIVE MATHEMATICS CONTENT STANDARDS**

### **Number Sense**

1. Students compute very large and very small numbers... (1.0)
  - Students estimate, round and manipulate very large and small numbers in their daily scientific studies. (1.1)
  - Activities: Oh Deer, Redwood Family Circle, Deadly Links

### **Algebra and Functions**

1. Students use variables in simple expressions... (1.0)
  - Students use information taken from a graph to answer questions about a problem. (1.1)
  - Activities: Dining Hall food waste graphs, Garden composting graphs, graphs created on trail to illustrate scientific concepts

### **Mathematical Reasoning**

1. Students use strategies, skills, and concepts in finding solutions. (2.0) In their daily scientific studies:
  - Students use estimation to verify the reasonableness of calculated results. (2.1)
  - Students apply strategies and results from simpler problems to more complex problems (2.2)
  - Students use a variety of methods to explain mathematical reasoning. (2.3)
  - Students make precise calculations and check the validity. (2.6)
  - Activities: Redwood Ecology activities, Marine Conservation lessons

## **GRADE FIVE ENGLISH-LANGUAGE ARTS CONTENT STANDARDS**

### **Reading**

1. Word Analysis, Fluency, and Systematic Vocabulary Development (1.0)
  - Students are given a vocabulary list of 100 words before attending outdoor school. They can use word origins to determine the meaning of unknown words. (1.2)

### **Writing**

1. Writing Strategies (1.0)
  - Students receive Outdoor School Journals and are encouraged by their classroom teachers to create multiple-paragraph narrative compositions, which establish a plot, setting and present an ending. (1.1)
2. Writing Applications (2.0)
  - Students are encouraged to write persuasive letters to formally express their opinions and have their voices heard. (2.4)
  - Activity: Town Hall Meeting; teacher meeting time

### **Written and Oral English Language Conventions**

1. Written and Oral English Language Conventions (1.0)
  - Students are encouraged to write in their journals with appropriate grammar, sentence structure, punctuation, capitalization and spelling. (1.1-1.5)

### **Listening and Speaking**

1. Listening and Speaking Strategies (1.0)
  - During the Town Hall Meeting students deliver focused, coherent presentations appropriately addressing the large audience of their peers. Other students present the speaker with thoughtful questions, requiring them to interpret the speaker's purpose and perspective. (1.1-1.6)

## **GRADE FIVE HISTORY-SOCIAL SCIENCE CONTENT STANDARDS**

### **United States History and Geography: Making a New Nation**

1. Students describe the major pre-Columbian settlements... (5.1)
  - Students learn about the Native Americans from the Santa Cruz mountains, the Ohlone People, and how they adapted to their geography and climate. Their customs and economies are discussed.
  - Activity: Replicating traditional crafts (exp. basket-making) and traditions (exp. natural face painting)
2. Students describe the cooperation and conflict that existed among the American Indians and between Indian nations and settlers (5.3)
  - Students learn about the struggle between the Native Americans and colonizers. They discuss the role of broken treaties and massacres.
  - Activity: reading and discussing "Brother Eagle, Sister Sky", a copy of Chief Seattle's famous speech.

## **GRADE FIVE VISUAL AND PERFORMING ARTS : Theatre Content Standards**

### **Creative Expression (2.0)**

1. Development of Theatrical Skills (2.1-2.2)
  - Students participate in improvisational activities to explore complex ideas.
  - Activities: Town Hall Meeting; Skit Night
2. Creation/Invention in Theatre (2.3)
  - Students collaborate as actors, directors, scriptwriters, etc. in creating a formal skit for their peers

## **GRADE FIVE VISUAL AND PERFORMING ARTS : Visual Arts Content Standards**

### **Artistic Perception (1.0)**

1. Develop Perceptual Skills and Visual Arts Vocabulary (1.1-1.2)
  - Students identify the principles of design in visual compositions involving "Earth Art" (see works by Andy Goldsworthy).

### **Creative Expression (2.0)**

1. Communication and Expression Through Original Works of Art (2.7)
  - Students create "Earth Art" using natural objects. They communicate personal insights through their work.

## **GRADE FIVE VISUAL AND PERFORMING ARTS : Music Content Standards**

### **Creative Expression (2.0)**

#### 1. Apply Vocal and Instrumental Skills

- Students sing a varied repertoire of music every night at campfire and every morning to start the day. (2.1)
- Examples: Red-Tailed Hawk (sung in a round), Banana Slug, Decomposition, The River Song, etc.

### **Historical and Cultural Context (3.0)**

#### 1. Diversity of Music

- Students sing music from diverse cultures and time periods. (3.2-3.3)
- Examples: The Ancient Egyptians, Gusano (Spanish song about worms), Harriet Tubman, Moonshadow, etc.

## **GRADE FIVE VISUAL AND PERFORMING ARTS : Dance Content Standards**

### **Artistic Perception (1.0)**

#### 1. Development of Motor Skills and Technical Expertise (1.1-1.2)

- Students participate in a dance, “The Barnyard Boogie” on Wednesday night, which help them gain focus, physical control and coordination in their movement.

### **Creative Expression (2.0)**

#### 1. Development of Partner and Group Skills (2.6)

- Students work with partners and groups where they practice skills of leading/following, mirroring, calling/responding, etc.
- Examples: The Patty-Cake Polka, The Chigga Cheer, etc.