



Coachella Valley Water District Classroom Presentations

(California Standards-based presentations)

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Grade & (Length)

California Content Standard(s)

Presentation Description

<p>Kinder & 1st (40 minutes)</p>	<p>Health Education #3 Students will understand and demonstrate the risk of becoming involved in potentially dangerous situations and react to potentially dangerous situations in ways that help to protect his/her health, i.e., Practice safe behavior in or near water...</p> <p>Theater Aesthetic Valuing -- 4.2 Compare a real story with a fantasy story.</p> <p>Science Kinder -- 1.b. Students know water can be a liquid or a solid and can be made to change back and forth from one form to the other. 3.c. Students know how to identify resources from Earth that are used in everyday life and understand that many resources can be conserved. 1st grade --1. Materials come in different forms (states, including solids, liquids and gases. a. Students know solids, liquids and gases have different properties. b. Students know the properties of substances can change when the substances are mixed, cooled, or heated. 3.b. Students know the sun warms the land, air, and water.</p>	<p>Tommy and the Canal -- Through a flannel board story, children find out how and why the water district designed its safety sign for children. Tommy, the main character, learns a hard lesson that helps everyone to follow warnings no matter where signs may appear.</p> <p>Doris Droplet -- Students are taken on a trip of discovery through the water cycle when Doris becomes water vapor and enters the atmosphere where she meets her friends in a cloud and then comes back to the earth as precipitation. Doris' states -- liquid, vapor and solid are but one small part of this animated and lively PowerPoint presentation.</p>
<p>1st & 2nd (45 minutes)</p>	<p>Health Education #3 See above.</p> <p>History-Social Studies 1.2.1 Locate on maps and globes their community, California, the United States, the seven continents, and the four oceans. 2.4.1 Describe food production and consumption long ago and today, including the roles of farmers, processors, distributors, weather, and land and water resources. 2.4.3 Understand how limits on resources affect production and consumption.</p> <p>Life Sciences 1st Grade -- 2.b. Plants and animals meet their needs in different ways. Both plants and animals need water, animals need food, and plants need light. 2nd Grade -- 2.e. Plants and animals have predictable life cycles. Light, gravity, touch, or environmental stress can affect the germination, growth, and development of plants.</p>	<p>This interactive and engaging PowerPoint presentation is designed to get students to think critically about water resources in the Coachella Valley, canal safety, water conservation, people who work with water (in this case farmers), what they do, and how they affect our lives in a positive way.</p>
<p>3rd (45 minutes)</p>	<p>Health Education #3 See above.</p> <p>History-Social Studies 3.1 Students describe physical and human geography and use maps, tables, graphs, photographs, and charts to organize information about people, places and environments in spatial context. 3.2 Students describe the American Indian nations in their local region long ago and in recent past.</p>	<p>This interactive and engaging PowerPoint presentation is designed to get students to think critically about water resources in the Coachella Valley, canal safety, water conservation, the discovery and use of groundwater by Native American Cahuilla Indians and the continued use of that resource today.</p>
<p>4th (45 minutes)</p>	<p>Health Education #3 See above.</p> <p>History-Social Studies 4.2 Students describe the social, political, cultural, and economic life and interactions among people of California from the pre-Columbian societies to the Spanish mission and Mexican rancho periods. 4.3 Students explain the economic, social, and political life in California from the establishment of the Bear Flag Republic through the Mexican-American War, the Gold Rush, and the granting of statehood.</p>	<p>This interactive and engaging PowerPoint presentation is designed to get students to think critically about water resources in the Coachella Valley, canal safety, and how water has affected the growth and development of the state from the location of ancient Indian villages to the placement of Spanish Missions, to the defined routes for the railroad and the discovery of gold in 1848. The importance of water to California's economy today is also discussed.</p>
<p>5th (45 minutes)</p>	<p>Health Education #3 See above.</p> <p>Science (Earth Sciences) -- 3. Water on Earth moves between the oceans and land through the processes of evaporation and condensation. 3.a. Students know most of Earth's water is present as salt water in the oceans, which cover most of the Earth's surface. 3.b. Students know when liquid water evaporates, it turns into water vapor in the air and can reappear as a liquid when cooled or as a solid if cooled below the freezing point of water. 3c Students know water vapor in the air moves from one place to another and can form fog clouds, which are tiny droplets of water or ice, and can fall to Earth as rain, hail, sleet, or snow. 3.d. Students know that the amount of fresh water located in rivers, lakes, underground sources, and glaciers is limited and that its availability can be extended by recycling and decreasing the use of water. 3.e. Students know the origin of the water used by their local community.</p>	<p>This interactive and engaging PowerPoint presentation is designed to get students to think critically about water resources in the Coachella Valley and that fresh water is a limited, renewable resource that must be protected for current and future generations, regulated for health standards, and conserved so we don't run out. The presentation includes a discussion of the water cycle, the valley's four sources of water [groundwater, canal water (Colorado River), State Water Project, and recycled water]. Canal safety and a discussion of conservation are also integrated into this presentation.</p>
<p>6th (45 minutes)</p>	<p>Health Education #3 See above.</p> <p>Science Plate Tectonics and Earth's Structure - 1. Plate tectonics accounts for important features of Earth's surface and major geologic events. 1.a. Students know evidence of plate tectonics is derived from the fit of the continents; the location of earthquakes, volcanoes, and mid-ocean ridges; and the distribution of fossils, rock types, and ancient climatic zones. 1.b. Students know Earth is composed of several layers: a cold, brittle lithosphere; a hot, convecting mantle; and a dense, metallic core. 1.d. Students know that earthquakes are sudden motions along breaks in the crust called faults and that volcanoes and fissures are locations where magma reaches the surface. 1.e. Students know major geologic events, such as earthquakes, volcanic eruptions, and mountain building, result from plate motions. Shaping Earth's Surface - 2. Topography is reshaped by the weathering of rock and soil and by the transportation and deposition of sediment. 2.a. Students know water running downhill is the dominant process in shaping the landscape, including California's landscape. 2.b. Students know rivers and streams are dynamic systems that erode, transport sediment, change course, and flood their banks in natural and recurring patterns. 2.c. Students know beaches are dynamic systems in which the sand is supplied by rivers and moved along the coast by the actions of waves. 2.d. Students know earthquakes, volcanic eruptions, landslides, and floods change human and wildlife habitats.</p>	<p>This interactive and engaging PowerPoint presentation is designed to get students to think critically about water resources in the Coachella Valley. Moving water and volcanic activity are powerful forces of nature that help shape the Earth's surface. Our valley is no exception. Ancient water lines and depressed valleys lend evidence to this type of activity. Our water resources are influenced by the geology of this area. The San Andreas Fault forces water to the surface, which helps make the desert a more habitable place. In addition, naturally formed aquifers hold tremendous amounts of fresh water which can be put to beneficial use. Nonetheless, this resource is limited and can only support a limited population. In light of this, water must be imported to sustain larger populations. This leads to a discussion of the Coachella Canal, its purpose and its dangers.</p>

Presentations for grades 7-12 are available based on requests for specific subjects based on teacher interest.

Note: Specially tailored presentations on water safety, wastewater reclamation and water science are also available and can be geared for grades 3 through 12. Facility tours are also available. Please contact Kevin Hemp or Maureen Perry at the number above to schedule.

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Coachella Valley Water District Project WET Activities

(California Standards-based)

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Activity	Summary	Objectives	Level
Common Water	Students analyze the results of a simulation to understand that water is a shared resource that must be managed.	<ul style="list-style-type: none"> ◆ Illustrate how multiple users of water resources can affect water quality and quantity. ◆ Examine the complexities of providing water for all water users. 	Middle School
Incredible Journey	With a roll of the die, students simulate the movement of water within the water cycle.	<ul style="list-style-type: none"> ◆ Describe the movement of water within the water cycle. ◆ Identify the states of water as it moves through the water cycle. 	Upper Elementary, Middle School
Get the Ground Water Picture	Students will “get the ground water picture” and learn about basic ground water principles as they create their own geologic cross section or earth window.	<ul style="list-style-type: none"> ◆ Identify the parts of a ground water system ◆ Compare movement of water through diverse substrates. ◆ Relate different types of land uses to potential ground water contamination. 	Middle School, High School
Ground Model Demonstration	Students will observe the flow of water both above and below the ground.	<ul style="list-style-type: none"> ◆ Identify the parts of a ground water system ◆ Compare movement of water through diverse substrates. ◆ Observe how drought, pollution and overdraft can affect the aquifer. 	Upper Elementary, Middle School, High School
The Long Haul	Students work in teams to compete in a water-hauling game.	<ul style="list-style-type: none"> ◆ Develop an awareness of various volumes of water. ◆ Appreciate today’s readily available water supplies. ◆ Relate how easy access to water can encourage people to use large amounts of water. 	K - 12
The Pucker Effect	Students observe how ground water transports pollutants, and simulate ground water testing to discover the source of contamination.	<ul style="list-style-type: none"> ◆ Describe how underground point source pollutants move through ground water. ◆ Analyze data from test wells they have “drilled” to identify point source contamination. 	Middle School, High School
Reaching Your Limits	Through a game of “limbo,” students experience the effort involved in meeting drinking water quality standards.	<ul style="list-style-type: none"> ◆ Describe the relationship between water quality and water treatment. ◆ Be aware of the ratio of one to a million. 	Upper Elementary, Middle School
Sum of the Parts	Students demonstrate how everyone contributes to the pollution of a river as it flows through a watershed and recognize that everyone’s “contribution” can be reduced.	<ul style="list-style-type: none"> ◆ Distinguish between point and non-point source pollution. ◆ Recognize that everyone contributes to and is responsible for rivers and lakes’ water quality. ◆ Identify Best Management Practices to reduce pollution. 	Upper Elementary, Middle School
Thirsty Plants	Through demonstration and field studies, students learn about transpiration and the significant role plants play in the water cycle.	<ul style="list-style-type: none"> ◆ Explain how plants transport water through transpiration. ◆ Describe the importance of plants in the water cycle. ◆ Recognize that certain plants are appropriate for xeriscaping. 	Middle School
Water Address	Students identify plants and animals and their habitats by analyzing clues that describe water-related adaptations of aquatic and terrestrial organisms.	<ul style="list-style-type: none"> ◆ Recognize water-related adaptations of some plants and animals. 	Upper Elementary, Middle School
Water Match	Students match up pairs of water picture cards and in the process learn to distinguish the three states of water — solid, liquid, and gas.	<ul style="list-style-type: none"> ◆ Identify the three states of water: solid, liquid, gas. ◆ Recognize that water can become polluted and that some water can be cleaned. 	Lower Elementary
Water Works	Students create a “water web” to illustrate the interdependence among water users and producers.	<ul style="list-style-type: none"> ◆ Distinguish between direct and indirect uses of water. ◆ Illustrate the interconnectedness of water users in a community. ◆ Demonstrate the complexity of resolving water shortages among interdependent community water users. 	Upper Elementary, Middle School

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