## Coachella Valley Water District Classroom Presentations

(California Standards-based presentations)

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**760-398-2651**

### Grade & (Length)  California Content Standard(s)  Presentation Description

<table>
<thead>
<tr>
<th>Grade &amp; Length</th>
<th>Health Education</th>
<th>Science</th>
<th>History-Social Studies</th>
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</thead>
<tbody>
<tr>
<td>Kinder &amp; 1st  (40 minutes)</td>
<td>#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.  Aesthetic Valuing -- 4.2 Compare a real story with a fantasy story.</td>
<td>Theatre</td>
<td>Tommy and the Canal -- Through a flannel beard 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.</td>
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<tr>
<td>Science</td>
<td>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.</td>
<td>1.2.1 Locate on maps and globes their community, California, the United States, the seven continents, and the four oceans, which cover most of the Earth's surface. 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.</td>
<td>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.</td>
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<td>1st &amp; 2nd  (45 minutes)</td>
<td>Health Education</td>
<td>History-Social Studies</td>
<td>Life Sciences</td>
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<td>3rd (45 minutes)</td>
<td>Health Education</td>
<td>History-Social Studies</td>
<td>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.</td>
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<td>4th (45 minutes)</td>
<td>Health Education</td>
<td>History-Social Studies</td>
<td>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. 3.c. Students know water vapor in the air may come 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.</td>
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<td>5th (45 minutes)</td>
<td>Health Education</td>
<td>Science</td>
<td>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 fossil, 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. 2. 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 fossil, rock types, and ancient climatic zones. 3.c. 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. 3.c. Students know water vapor in the air may come 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.</td>
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### 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.
<table>
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<th>Activity</th>
<th>Summary</th>
<th>Objectives</th>
<th>Level</th>
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| Common Water                  | Students analyze the results of a simulation to understand that water is a shared resource that must be managed. | ● 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.                  | ● 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. | ● 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.                                                                              | Middle School, High School    |
| Ground Model Demonstration    | Students will observe the flow of water both above and below the ground.                                      | ● Describe how underground point source pollutants move through ground water.  
● Analyze data from test wells they have "drilled" to identify point source contamination.                                                             | Upper Elementary, Middle School, High School |
| The Long Haul                 | Students work in teams to compete in a water-hauling game.                                                  | ● 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. | ● 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. | ● 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. | ● Distinguish between point and non-point source pollution.  
● Recognize that everyone contributes to and is responsible for rivers and lakes’ water quality.                                               | 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. | ● Explain how plants transport water through transpiration.  
● Describe the importance of plants in the water cycle.                                                                                               | 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. | ● 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. | ● 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.            | ● 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 |

(Over)