

## Water Wise – Water Cycle, Supply, Treatment, Conservation

The more familiar your students are with what they will learn and experience, the better their understanding. To prepare your class for this program, or to follow-up our presentation and reinforce learning concepts, Colorado Springs Utilities suggests conducting a pre/post test to gauge knowledge (see last page) and the following helpful resources:

### **Answer Key for Pre/Post Test (see last page for test)**

1. Evaporation, condensation, precipitation, infiltration, surface runoff; 2. Colorado River (65%), Arkansas River (30%), South Platte River (5%); 3. 100 miles; 4. Coagulation/flocculation, sedimentation, filtration, disinfection; 5. Coal, sand, gravel; 6. 78 gallons per person per day; 7. Through a sanitary sewer main to the Water Resource Recovery Facility (Wastewater Treatment Facility) where the water is cleaned, 90% flows downstream to the next communities eventually reaching the Atlantic Ocean via the Gulf of Mexico and 10% is reused in town for non-drinking purposes; 8. Ultraviolet light which changes the DNA of the microorganisms and bacteria so they cannot reproduce; 9. About 200; 10. Take a 5-minute shower, turn off the faucet when brushing teeth and washing hands, check for leaky toilets, install water efficient fixtures, water outside before 10 am or after 6 pm no more than 3 days a week in summer.

- Please share your pre/post test results with us! Email us at [communityrelations@csu.org](mailto:communityrelations@csu.org)

### **Optional Student Activities**

[Water Cycle in a Bag](#)

[Water Filter Experiment](#)

[Water Conservation Wizard Student Workbook](#) and [Answer Key](#)

### **Online Videos and Websites**

#### **General Water Facts**

- [Water Facts](#) for Kids (2:05 minute video)
- [Water: What you Pay For](#) from the Alliance for Water Efficiency (3 minute video) - Find out about the water service a typical residential water bill covers, and the costs of delivering a consistent, reliable flow of safe and affordable drinking water to your faucet.
- [Downstream](#) – Excellent video on water facts and reuse produced by WaterReuse (8 minutes long).

## Colorado Springs Water System

- [Colorado Springs' Water System](#) is a 12-minute video covering the history of the water utility, the raw water collection systems and planning for a sustainable water future.
- Our [Interactive Water System Map](#) allows students to visually follow the journey of their water and learn about our collection systems.
- [Colorado's Transmountain Diversions](#) from the Colorado River District (8 minute video)—the what, how and why of Colorado's water projects.
- Our [Water Quality Laboratory](#) tests the water to make sure it's safe. Every day, snowmelt comes streaming down from the mountains that is captured for your water supply. We have six facilities working around the clock to treat it and supply it to your home. (2:08 minute video)

## Stormwater

- [H2O Jo Takes a Ride through a Storm Drain](#). A kid-friendly video following a drop of water through the water cycle, his adventures as rainwater runoff, showing how polluted water affects water quality (8 minutes).

## Water Conservation

- [Water Conservation Wizard Student Workbook](#) comes with shower timer and toilet leak test kit. [Email us](#) for supplies and check answers [here](#).
- [Water Use Calculator](#) from the Alliance for Water Efficiency with interactive clicks on rooms within the home and tips on water conservation.

## Water Education Kit

Colorado Springs Utilities supports educators within our service area by providing a free Water Education Kit for check-out. Make your own cloud-in-a-bottle to reinforce weather concepts, conduct experiments to show water properties, or play the Incredible Journey Water Cycle Dice Game with your students. These, and several more experiments, are included in the Water Education Kit that comes with free consumables. [Email us](#) or call (719) 668-4621 to reserve.

## Water Wise Program Pre/Post Assessment

**NAME:** \_\_\_\_\_

1. List the five main parts of the water cycle.
2. From what three river basins, or major watersheds, does Colorado Springs Utilities pull your drinking water from?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. About how many miles has some of the Colorado Springs drinking water travelled to get to your house? \_\_\_\_\_ miles
4. Put the 4 steps in the water treatment process in number order.  
Disinfection \_\_\_\_, Sedimentation \_\_\_\_, Filtration \_\_\_\_, Coagulation/flocculation \_\_\_\_
5. What three materials does Colorado Springs Utilities filter its water through to make it clean?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. What is the average water use per person per day in Colorado Springs (in gallons)?  
\_\_\_\_\_ gallons per person per day
7. Describe where water goes after it has been used in houses and buildings.
8. How does Colorado Springs Utilities disinfect the reclaimed wastewater before it is released into Fountain Creek?
9. How many communities does our water flow past before it reaches the Atlantic Ocean via the Gulf of Mexico? \_\_\_\_\_ communities
10. List 3 things you can do to conserve water.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_