



Imagine a Day without Water Activity Plan

Background

What is WSSC Water?

WSSC Water has been a proud member of the community since 1918. Our team of water professionals go to work every day focused on one essential, water, so you don't have to think about it. One of the largest water and wastewater utilities in the nation, WSSC Water has a network of over 5,700 miles of water pipeline and over 5,600 miles of sewer pipeline. This is almost the same as the distance between Washington D.C. and Melbourne, Australia. Over 1500 employees help deliver seamless and reliable service, each one upholding our mission to provide safe and reliable water and wastewater services to the community.

WSSC Water's service area spans nearly 1,000 square miles in Prince George's and Montgomery counties, and we serve 1.8 million residents. Drinking water is produced by pumping water from the Patuxent and Potomac Rivers where it is treated at a Water Filtration Plant before being sent through a network of storage tanks and pipes to our customers. After customers use water and send it down the drain it then travels through a separate network of pipes that send wastewater to six water resource recovery facilities that remove waste from the water and return it back to the rivers downstream of where it was used. In over 100 years WSSC Water has never had a drinking water quality violation and our water resource recovery facilities return water back to the environment cleaner than the water that is pumped out at the beginning of the process.

The pipes that make up our water distribution and wastewater collection system are hidden underground and are larger and generally older than the roads and bridges we use to move around our communities. Even though water is a vital resource for all living things, the work needed to provide water and wastewater services to communities 24 hours a day, seven days a week, 365 days a year is something that most people don't give a second thought to.

Without our water and wastewater systems you would not be able to give your dog a bowl of water, brush your teeth, flush the toilet, wash your hands, or water your garden. Schools, hospitals, factories, power plants, carwashes, and aquariums would have to close.

And while water falls from the sky and flows through our rivers, it is far from free. Processing it, treating it, bringing it to and from your house, treating it and then returning it to rivers all costs money.

Learning Outcomes

By participating in this activity students will be able to:

- Examine their water use at school and design a visual representation of their water use.
- Recognize that there is an agency responsible for providing water and wastewater services to their community.

Procedure

1. At the start of the school day ask students to list how they use water during the school day- create a class list on the board.
Examples of water use may include- going to the bathroom, washing hands, getting a drink from the water fountain, watering classroom plants or animals, etc.
2. Instruct the class that for the rest of the day they will be tracking how many times someone in the class uses water. Tracking can be done in a number of ways.
 - Each student could create a tally sheet at their desk and then everyone's counts would be combined at the end of the day
 - Create a large tally on the board and ask students to place tally marks when they use water.
 - Use water drops (attached) and have students place drops in "water use" bowls.
3. At the end of the day count how many times each member of your class used water for each water use then as a class create a visual representation of the class's water use for the day.
4. Share a photo of your class participating in the activity with us by tagging @WSSCWaterNews on Twitter or @WSSCWater on Facebook or email them to communityoutreach@wsscwater.com

Wrap Up

Ask students the following questions-

How would your school day be affected if you did not have access to water at school?

How would you and your community be affected if there were not sewer pipes to take the wastewater away from the school?

Extensions

- Have students use a water use calculator to determine how many gallons of water they used during the day.
 - <https://www.sfwmd.gov/water-conservation-calculator> or <http://water.usgs.gov/edu/activity-percapita.html>
 - If you'd like to have students do the math on their own you can use the chart here- <https://www.wsscwater.com/customer-service/rates/water-usage.html>
- Have students go home and list all the ways their family uses water in a 24 hour period and then create a tally sheet to chart their family's water use and then calculate approximate amount of water used per household. Have students share their calculated amount of water use and then as a class compare household water use and discuss what factors determine the different ways families use water. For example size of family, type of house, sprinkler systems, pool, etc.
- Help students understand how their school or homes are charged for water by showing them how to read a water meter and determine the rates used to calculate a bill. Have them take their day's water use and determine how much it would cost them to pay for water and sewer services for their class uses for 1 month.
 - [Meter reading activity](#)

- Calculate a water bill- Use WSSC's rate structure to determine how much it costs to supply water services for your class for 1 month.
<https://www.wsscwater.com/rates>

Video Resources

- WSSC Water's water main replacement video gives an overview of the work students may see in the community as we work to replace water mains.
<https://www.youtube.com/watch?v=yuUwM3prdEs>
- Older students may enjoy this video highlighting the chemistry behind providing water and wastewater services to a community.
<https://www.youtube.com/watch?v=CTB7iiYVYq8&sns=em>

