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 Plan 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 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 day ask students to list how they use water during the day. Examples of water use may include- going to the bathroom, washing hands, drinking water, watering plants, water for animals, water to cook, wash dishes and clothes, taking a bath or a shower, brushing teeth, etc.
  2. For the rest of the day students will track how many times they use water, make sure to add any new uses of water that weren't thought of at first. Tracking can be done by creating a tally sheet or using water drops (attached), beads or coins and having students place drops in "water use" cups.
  3. At the end of the day tally up the water use for each category.
  4. Share a photo of your family 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-
    1. How would your day be affected if you did not have access to water?
    2. How would you and your community be affected it there were not sewer pipes to take the wastewater away from homes, schools, businesses, etc.?

Extensions
  - Have students use a water use calculator to determine how many gallons of water they used during the day.
    o https://www.sfwmd.gov/water-conservation-calculator or http://water.usgs.gov/edu/activity-percapita.html
    o If you'd like to have students do the math on their own you can use this chart.
  - You can extend this to your entire family and their water use in a 24-hour period and then calculate approximate amount of water used for the household.
  - Help students understand how water isn't free and that people are charged for water by looking for your water meter, 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 to pay for water and sewer services 1 month.
    o Find your water meter
    o Meter reading activity
    o 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

Resources
  - WSSC Water produced videos to learn more about our work.
  - Learn the steps to making water safe to drink.
  - Learn what happens to water after you use it.