Education Outreach

MENU

2018-19

What’s on Tap!

FREE

Outreach Opportunities for K-12 Students
Main Courses!

**Kindergarten**
**Water Wonders**  
SOLs: Science K.1, K. 2, K.4, K.5  
- Sink vs. float  
- Gravity’s effect on water  
- Properties and phases of water

**First Grade**  
**Mix it Up!**  
SOLs Science 1.1, 1.3  
- Temperature and dissolving  
- Mixtures, solutions and chemical reactions with common household materials and water

**Second Grade**  
**Water Matters**  
SOLs: Science 2.1, 2.3  
- Water and temperature  
- Intro to the water cycle  
- Water as a solid, liquid and gas

**Third Grade**  
**Incredible Journey**  
SOLs: Science 3.1, 3.9, 3.10, 3.11  
- In-depth water cycle game  
- Evaporation, condensation and precipitation  
- Water conservation

**Fourth & Fifth Grade**  
**Watershed Model**  
SOLs: Science 4.1, 4.5, 4.9  Science 5.1, 5.7  
- Watersheds and water resources  
- Human impact on watersheds and water quality  
- Water pollution, erosion and best management practices

**Sixth Grade**  
**Watersheds and Water Quality**  
SOLs: Science 6.1, 6.5, 6.7, 6.9  
- Virginia’s watersheds  
- Human impacts and best management practices  
- Point and non-point sources of water pollution

**Earth Science & Ecology**  
**Effects on Freshwater Resources**  
SOL: ES.8  
Investigate the effects that human and geologic processes have on our freshwater resources. Watershed and karst topography models demonstrate these concepts including the water table, zone of saturation and zone of aeration.

**GIS Technology**  
Students learn to use technology to identify water and sewer infrastructure, measure distances and use topographic maps with our Geographic Information System (GIS). Students can use their own laptops.

**Careers**  
A water utility requires engineers, biologists, chemists, customer service and human resource professionals, accountants, and field operations personnel to provide safe, clean water. Invite a representative to your classroom to share the professional opportunities that are available at the Water Authority.

**Order a MWEE to GO!**
*To gain the most from this field trip, we suggest you invite a member of our education team into your classroom prior to your field trip.

**Meaningful Watershed Educational Experience (MWEE) at Carvins Cove or a Location Near You**
Order a Field Trip! It’s Free.

Carvins Cove Reservoir & Natural Reserve

Visit Roanoke’s largest drinking water source and our nation’s second largest municipal park and treat your students to SOL-based, experiential lessons in the outdoors. Picnic facilities are available. K-2nd grade programs run 10:00 am - 12:30 pm and include two outreach activities. 3rd-5th grade programs run 9:30 am - 1:00 pm and can include three activities. This K-5 field trip can accommodate up to 80 students at a time. See options at the bottom of this page for educational programming at the Cove.

We are upgrading the Carvins Cove Water Treatment Facility’s drinking water treatment filters starting this fall. This capital improvement project includes construction, so in the interest of safety, tours of the facility will be unavailable until further notice. Groups are welcome to schedule field trips to Carvins Cove Reservoir or to our other water treatment facilities.

Spring Hollow Water Treatment Facility

The Spring Hollow Water Treatment Facility is located in western Roanoke County, just past Dixie Caverns. Students must be in third grade or above to visit the facility. Students will also see our lab to learn about the chemical and bacteriological tests that we conduct on the drinking water in our distribution system. This facility can accommodate up to 60 students at a time. Please allow 45 minutes to tour the treatment and laboratory facilities.

Crystal Spring Filtration Facility & Historic Pump Station

Located next to Carilion Roanoke Memorial Hospital, Crystal Spring offers a look at Roanoke’s oldest drinking water source. Visitors to Crystal Spring can see the 1905 steam pump in action, view the water in the spring box, learn about the ultrafiltration process and see how Crystal Spring played a role in Roanoke’s early development. This field trip can accommodate up to 40 students at a time. All grade levels can tour Crystal Spring.

On Carvins Cove Field Trips students are divided into groups. Students rotate between a nature hike and an activity from among the following:

- **Bubbles** K-2nd
- **Life Box & Nature Scavenger Hunt** 1st-3rd
- **We All Live Downstream** 4th & up
- **Extended Hike** All Grades

à la carte
Placing your Order is EZ!

**Outreach Education**
We offer both in-class and field trip opportunities that incorporate the Virginia Standards of Learning and are designed to build upon your school's science curriculum.

**To Make a Reservation**
Advance reservations are required for all in-class and field trip programs. We offer tours for groups of 10 or more participants. Please see individual field trip descriptions for maximum group size allowed. Visit our website at www.westernvawater.org/teacher to reserve your date or email us at education@westernvawater.org.

**Service Area**
The City of Roanoke and the Counties of Roanoke, Franklin and Botetourt

**Cost**
All in-class presentations and field trips are FREE of charge.

**Length of In-Class Presentations**
In-class K-5 presentations are 45 minutes in length. Middle and high school in-class presentations may require more time and can accommodate block scheduling.

**Instructors**
Our outreach educators, Tara Poelzing and Robin Bailey, bring more than 50 years combined experience in both formal and nonformal settings. They hold Virginia Master Naturalist certifications and are members of BREE, Blue Ridge Environmental Educators.

Visit www.westernvawater.org/teacher or email us at education@westernvawater.org to schedule an in-class presentation or field trip.