Engineered Water Systems Field Trip

Wastewater, Drinking water & Stormwater

Wastewater, drinking water and stormwater management are all crucial to a healthy human society. Join us to learn how humans have engineered systems to manage this precious resource and what we can all do to protect water for years to come.

Wastewater

Water Reclamation Facility Short Tour

Take a short walking tour of the Spokane County Water Reclamation Facility to learn about the incredible engineered process that transforms dirty wastewater into three reusable products: clean water, bio-solids and energy. *Please note – In classroom pre-lesson required for this shortened tour. Consider doing the full tour – see back for details!

Drinking Water

Aquifer Manager

Using an aquifer model, students work together to manage groundwater wells on their property. Students will apply critical thinking to adapt to changing conditions including climate change, drought and population growth. Students will understand how conservation can be applied to manage resources wisely.

Stormwater

Where Does Stormwater Go?

Tour the campus of the Water Resource Center to understand how water is managed to capture and filter stormwater runoff. Students will do a mapping exercise, noting permeable and impermeable areas, to understand how different surfaces can impact runoff in an urban environment.

Investigate Water

Test local water samples using handheld probes, chemical tests and biological assessments to evaluate the properties and quality of the various water sources.

Science & Engineering Practices: Asking Q’s/ Defining Problems, Constructing Explanation, Designing Solutions

Questions? Contact Toni Taylor | tntaylor@spokanecounty.org | (509) 477-7577

Sign-up online:
www.spokanecounty.org/FieldTripRequest
Engineering: Wastewater Reclamation Facility Full Walking Tour and Lab

The first portion of the tour is a presentation that takes you visually inside the treatment tanks to learn how wastewater is managed, cleaned and returned safely into the environment. You’ll then head out on a 45-minute, guided, walking tour (weather dependent) of the Spokane County Regional Water Reclamation Facility. Learn about the engineering processes that transform dirty wastewater into three products: clean water, biosolids and energy. Explore how population growth and resource use affects overall wastewater systems and the health of the Spokane Valley-Rathdrum Prairie Aquifer. After the tour, participate in a hands-on lab to clean your own ‘wastewater’ while gaining a better understanding of the chemistry and physical processes crucial to the treatment process.

NGSS Alignment

**DCIs:** ESS3.C, ETS2.B, PS2.C  
**Crosscutting Concepts:** Systems and System Models, Energy and Matter: Flows, Cycles, and Conservation, Structure and Function

Know Before You Go! Field Trip Details

- Field Trip Maximum is 60 students. If you have a larger group than this, please reach out directly so we can discuss other options. **Please Note** - Depending on the size of your group, we may not be able to do some lessons effectively. However, we will work with you to create a great program from our menu of lessons.
- Long pants, weather-appropriate clothing and closed-toe shoes are required for tours.
- **Looking for a topic that you didn’t find above?** We may be able to customize to better meet your learning objectives. Get in touch to discuss!
- We recommend that you schedule your field trip at least two months in advance to get preferred dates.

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