

# WATER - EXPLORATION for GRADES 3-5

## Wastewater

### OVERVIEW

Explore what happens to water after it goes down drains! Students experience how water treatment plants work by using tools to clean tubs of water containing things that could be found in wastewater and storm drain run-off. Then the class will test the quality of the “cleaned” water and discuss what they were able to clean out and what they were not, and how this applies to our real-life water systems.

### LOGISTICS

**Program Length:** 50 minutes

**Audience Size:** Up to 30 students

**Preparation:** Science Museum Instructor brings all needed equipment and materials.

This program requires at least 1 table for instruction materials, tables for students, and access to water. It is best to try to leave program in a designated space rather than moving from room to room. Some food-dyed water will spill onto floors and tables.

Please allow 1 hour each for initial setup and final teardown.

Please allow for at least 10 minutes to reset between classes.

### SCIENCE EXPERIENCE GOALS

- Water that goes down drains in buildings and streets carries waste products; some can be harmful to living things and the environment.
- Some waste products can be removed from water, some cannot.
- People can have a positive effect on wastewater cleanup and storm water runoff.

### VOCABULARY INTRODUCED

- Wastewater, Contaminant, Pollution, Nitrates

### STANDARDS

#### **MN Academic Standards/Benchmarks: Earth and Space Science**

4E.1.1.2 Ask questions about how water moves through the Earth system and identify the type of question.

4E.1.2.1 Students will be able to design and conduct investigations in the classroom, laboratory, and/or field to test students' ideas and questions, and will organize and collect data to provide evidence to support claims students make about phenomena.

4E.3.1.1 Develop a model based in part on student observations or data to describe ways the geosphere, biosphere, hydrosphere, and atmosphere interact.