

WATER - EXPLORATION for GRADES 3-5

Groundwater

OVERVIEW

Discover how water can be stored in a variety of places - even in layers of underground rock. Student teams use a unique model to investigate where groundwater comes from, where it goes, and how it can be replenished, depleted, or polluted. Pumping water from a “well” and producing “rain” reveals what’s happening to the water beneath their feet.

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 water with food dye will spill onto floors and tables.

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

Please allow for at least 20 minutes to reset between classes.

SCIENCE EXPERIENCE GOALS

- Water moves through and can be stored in rock below the Earth’s surface.
- Water can be depleted and used faster than it can be collected underground.
- Groundwater can be polluted, making it unavailable or unsuitable for life.

VOCABULARY INTRODUCED

- Porous, Water Table, Point Source Pollution

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