

SCIENCE MUSEUM OF MINNESOTA

WATER ASSEMBLY, GRADES 3-5



Concepts, Learning Goals, & Logistics

GENERAL OUTLINE:

Water – A Global View

Encounter water as a global resource that has been necessary for all life throughout Earth's history. Compare and contrast the vast volume of water that is on Earth to the relatively small amount of freshwater available for use.

Freshwater in Minnesota – A Local View of the Water Cycle

Students observe how water cycles as our presenter simulates Minnesota's only mechanism for receiving freshwater – rain and snow (precipitation). Volunteers help determine where and how much of that water goes to collection sources such as surface waters and groundwater, and how much water returns to the air.

People Use and Change Water – A Water Use Story

Students view a day in the life of an average Minnesotan and discover the amount of water used by one individual through electricity, manufacturing, agriculture and household use. They see how water can be depleted from its sources and how it can be polluted through everyday activities. The audience is called to action by thinking of how they can change their behaviors to protect this precious resource.

Science Learning Goals

- Water is an essential resource for life on Earth.
- Water moves and cycles around our planet.
- Freshwater, limited in supply, is used for many purposes.
- Water can be depleted or polluted, making it unavailable for life.

Vocabulary Introduced:

- Evaporation
- Precipitation
- Transpiration
- Groundwater
- Surface water
- Pollution

Program Length: 50 minutes

Audience Size: Up to 250 students

Preparation: Science Museum instructor brings all needed equipment and materials. School provides two tables for demonstrations and access to electricity. Allow 45 minutes before and after program for set-up and take-down.

MN Academic Standard Strand: The Nature of Science and Engineering (0.1.1.2.1, 1.1.1.1, 1.1.1.2)

NGSS Science and Engineering Practices: Analyzing and Interpreting Data (1-ESS1-1), Constructing Explanations and Designing Solutions (1-LS3-1)

NGSS Crosscutting Concepts: Structure and Function (2-LS2-2)

If you have further questions on bringing programming to your school, please contact our Outreach Registration Coordinator at (651) 221-4748 or schooloutreach@smm.org.