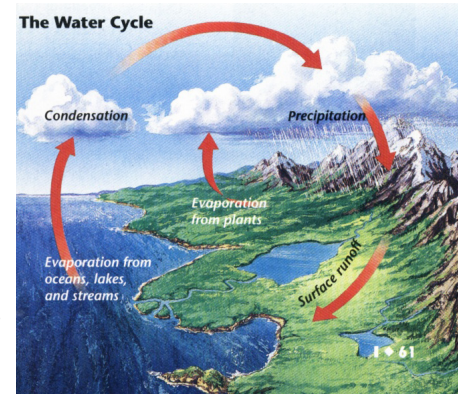


## Activity: The Water Cycle Weather Instruments: Kit

**Overview:** This activity will teach students about the water cycle. There are a couple of ways to teach it. If you have a computer lab available there is a web quest that does a great job of explaining the parts. If you don't have computers for students you can teach using the PowerPoint. There is a Bill Nye water cycle episode that is good that is found in the District Video Program CCC. There are lab/demo activities to teach evaporation, condensation and precipitation if you want to try them that are found under the labs section on the Water Cycle website.



### Benchmarks:

- 4.3.2.3.1** *Identify where water collects on Earth, including atmosphere, ground, and surface water, and describe how water moves through the Earth system using the processes of evaporation, condensation and precipitation.*

### Learning Objectives:

1. The students will be able to explain the 3 major concepts of the water cycle- condensation, evaporation, and precipitation.
2. The students will be able to explain that water is in a continuous cycle and that water does not appear or disappear.
3. The students will be able to explain the 3 states of water- gas, liquid and solid.

### Materials needed:

- Computer
- Projector

### Teacher Background Info:

Water on earth is used over and over. The water cycle, the continuous movement of water from ocean to air and land then back to the ocean in a cyclic pattern, is a central concept in meteorology. In the water cycle, the sun heats the Earth's surface water, causing that surface water to evaporate (gas). This water vapor then rises into the earth's atmosphere where it cools and condenses into liquid droplets. These droplets combine and grow until they become heavy and fall to the earth as precipitation (liquid if rain, solid if snow).

Water is temporarily stored in lakes, glaciers, underground aquifers, reservoirs, or in living organisms. The water moves from these places via streams and rivers, is used by plants or animals or is evaporated directly back into the atmosphere.

### Anticipatory Set Questions

What does it mean if something is a cycle? Ask them if they have heard of any cycles in nature.

Start with the Water Cycle PowerPoint (on John Adams Storm Water and Raingarden Curriculum Website) and explain that water moves in a natural cycle. Ask them what that means.

After the PowerPoint bring up the Water Cycle Web Quest and demonstrate it on the computer/projector. If you have access to enough computers you can have the students complete the web quest activity as teams. The activity can be found at: <http://edtech2.boisestate.edu/mitchemh/502/webquest/intro.html>

There is also a Bill Nye Video on the Water Cycle via the Rochester Public Schools CCC application. It does a good job of going over the parts of the Water Cycle.

### Wrap up:

You can have the students sing the Water Cycle Boogie song (<http://www.youtube.com/watch?v=nWgplwldu8QU>) or watch the Water Cycle Song YouTube video clip that is found at the bottom of the Water Cycle Web Quest page.

