

Water World Story

Science Standard I

Objective 2

Connections

Science Standard I:

Students will understand that water changes state as it moves through the water cycle.

Objective 2:

Describe the water cycle.

Intended Learning Outcomes:

2. Manifest Scientific Attitudes and Interests
4. Communicate Effectively Using Science Language and Reasoning

Content Connections:

Technology; Math; Social Studies; Writing

Background Information

The purpose of this activity is to help students discover the actual locations that hold water as it passes through the water cycle. The whole process begins with the sun. It is the sun's heat that causes evaporation to occur. Water changes from its liquid state, like an ocean, and becomes an invisible vapor that rises. As the water condenses, we see it as clouds in the atmosphere. Depending on the temperature, humidity and other factors, the water can form different types of precipitation such as rain, snow, or hail. This water then collects in streams, rivers, lakes, and oceans. Some water also seeps into the ground and collects there. Water is also found in its solid state in the form of glaciers, near the polar regions of Earth and in snowpack conditions of high elevations for portions of the year.

Invitation to Learn

Ask: Have you ever taken a cold drink of water and wondered where it came from? Where do you think it came from? How did it get to our school?

Instructional Procedures

1. Read a sample narrative story about a droplet of water (e.g., *The Drop of Water*, by Donald R. Daugs in *The Comprehensive Water Education Book*).
2. Distribute maps of Utah.
3. Discuss major lakes, rivers, and mountain ranges found close to the school.

4. Distribute journals or writing paper.
5. Have the students write a story about how a drop of water may have traveled to arrive at the school. The story should include specific names of mountains, lakes, and rivers it could have been held in.
6. Use their science journal pages to design a six-frame template for a presentation on the water cycle.
7. Assign the students to write in the following titles for each frame: Title, The Sun, Evaporation, Condensation, Precipitation, Collection.
8. Have the students illustrate each frame. This can be done with any media available.

Materials

- Map of Utah
- Map of Japan (optional)
- Map of China (optional)
- Journal or writing paper
- Narrative story (e.g. *The Drop of Water*)
- Use a science journal to make a six-frame outline
- Crayons, colored pencils, or markers

Possible Extensions/Adaptations/Integration

- Students could do another water story with a setting in another part of the world, such as Japan or China.
- A water story could be prepared in advance with blanks for students to fill in the names of the mountains, oceans, rivers, etc.
- Students with computer access could design a multimedia presentation of the water cycle or their water story.

Assessment Suggestions

- The stories that the students write can be collected and evaluated.
- The six-frame presentation design can be assessed.

Additional Resources

Reference Books

The Search for the Water Cycle, available through the Living Planet Aquarium, 522 S. 400 W. Suite 200, Salt Lake City, UT 84101, 801-320-9951.

The Comprehensive Water Education Book (1994 edition), available through Utah State University in Logan, Utah 84322 or 1-800-922-4693.

Children's Literature

A Drop Around The World, by Barbara Shaw McKinney (1998);
ISBN 1883220726

The Magic School Bus: At the Waterworks, by Joanna Cole (1988);
ISBN 0590403605

Web sites

<http://www.uen.org> Look for lessons: *All Washed Up* and *Miniature Water Cycles*

<http://www.usoe.k12.ut.us> Look up activities under the science core for 4th grade.

The Sci-ber Site lessons have good information and activities.

<http://www.epa.gov> This site has a lesson on the water cycle.

<http://www.kimballmedia.com/Drippy> This site has an online story plus videos, etc.

<http://www.brainpop.com> Watch the video and take the quiz.

<http://ga.water.usgs.gov/edu/>

Agency Contacts

Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058
Phone: 801-226-7100

Family Connections

- Use a digital or 35 mm camera to take pictures of the sun (use caution when viewing the sun), clouds, mountains, lakes, rivers, etc. These can be assembled in a water cycle poster or made into a multimedia presentation.
- Find out ways that you can help conserve water in your community and at home.
- Take a family fieldtrip to the local water treatment plant or water storage facilities.