

The Water Cycle

Real World Ecosystems
Activity
Grade Level: 5-8



Main Objectives

This activity provides an introduction to terminology along with background information, then provides practice activities in which learners identify some transformations that occur in the “lifetimes” of water molecules.

Learning Outcomes

By the end of this activity, learners will:

- Describe matter cycles in terms of stages and processes by which specific atoms are withdrawn from a source, are incorporated into the tissues of living organisms, and returned to their original source.
- Construct simple diagrams to represent each of the given cycles
- Identify some of the ways in which human activity may change each of the cycles and the issue involved with that change

Length of Activity

1 hour

Materials List

The Water Cycle Backgrounder
The Water Cycle Learner Worksheet
The Water Cycle Learner Worksheet Answer Key

Procedure

Step 1: Backgrounder

- a. In groups or individually, review the Water Cycle Backgrounder.
- b. As learners are finishing up their reading, be sure to remind them to discuss amongst themselves the “Think About” questions at the end of the backgrounder.

Step 2: Worksheet

- a. Provide the learners with the worksheet and have them answer the questions as a take-home assignment, or in class.
- b. Answers to the worksheet questions can be found in the answer key.

Tips and Extensions

- Learners will likely be much more familiar with the water cycle than with either the nitrogen or carbon cycles.
- Demonstrate how matter cycles by building a biosphere bottle. Build one as a demo or have learners work in small groups to create one per group. A large water bottle (20 L) or a large glass jar can be used. Have the students put a layer of rocks (3 L), activated charcoal (1 L), a few pinecones and humidity-loving plants (3-4) in the bottle. Then spray with water and cap tightly. Discuss how the biosphere bottle is much like the Earth's atmosphere and has its own matter cycles.