

WATERSHED

Lesson Objectives:

Students will recognize human-influenced features and activities that affect water quality.

Teacher Background:

Water in wetlands is connected to the landscape around it. All of the land that drains water into **aquifers**, lakes, and streams between ridges (**topographic** high points) is called a **watershed**. Harmful human activities in the watershed ultimately affect the water, particularly through **runoff**. Wetlands **filter** out and absorb many **pollutants** from runoff as it travels across the land. These pollutants include soil (**sediments**), **fertilizer**, chemicals, trash, gasoline, and oil. Our survival depends upon having a clean water supply, and the protection of wetlands is vital to sustaining good water quality.

Materials:

To make a watershed:

Large plastic tub several large rocks a bucket full of clay a watering can a bucket full of soil

Procedures:

Introduce watershed concept. Note that gravity causes **precipitation** to run downhill and eventually into waterways, the heart of a watershed. In fact, most waterways and wetlands lie downhill from the land around them.

Because wetlands receive water after it flows over land, what activities on land will affect the water quality of wetlands?

Make a watershed: Divide the class into groups and give each group the following directions and materials.

Directions:

1. Pile the rocks into the center of the tub.
2. Cover the rocks with clay packing it down tightly to form the shape of a hill or mountain
3. Make a ridge along the top of the mound.
4. Loosely spread the soil onto the rock and clay mound.
5. Fill the watering can with water
6. Slowly sprinkle water to simulate rain across your watershed.

Ask students what effects there would be if the water became polluted in the watershed. You may add grape powdered drink mix to the water to show clearly the effects of **polluted runoff**.

Additional Activities: What Is A Watershed (Student Lesson Page) Pg. 24, Color The Watershed Pg. 25, Build A Watershed Pg. 26, Where Is Your Watershed Pg. 29

This activity page was provided by special permission from The Mississippi Department of Environmental Quality. To learn more about the Watershed Harmony Environmental Puppet Theater or Study Guide, please visit www.bayoutown.com.

Resources: Adapted from: Wow! The Wonders of Wetlands, Environmental Protection Agency, Region VIII, U.S. Department of the Interior, Bureau of Reclamation.