

Special Feature Lesson:

Wetlands are Flood Fighters

Overview:

Students perform an experiment to compare the ability of different habitat models to absorb “floodwaters.”

Curriculum Focus:

science
social studies

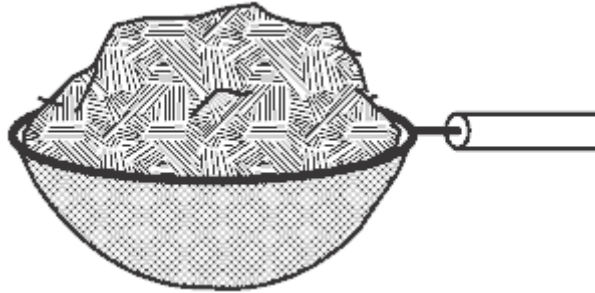
Materials:

cheesecloth
fish net
bowl
measuring cup
sphagnum moss
water timer or clock
piece of sod
sand
large rock

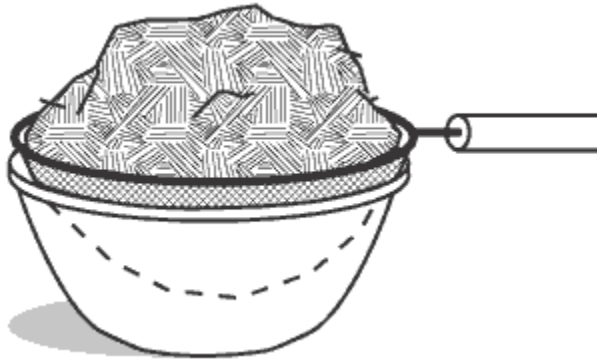
Activity:

Review *Special Feature* with students. Focus on a wetland's natural ability to reduce the effects of flooding. Ask students to share any facts they know or experiences they have had with flood events. Tell students they are going to perform an experiment that demonstrates how wetlands help control floods. Have students work in groups. Each group will need a set of the materials listed above (you can get sphagnum moss and sand at a garden supply store). You may wish to cover students' work areas with newspaper in case water spills. Share the following directions with students to have them perform the experiment:

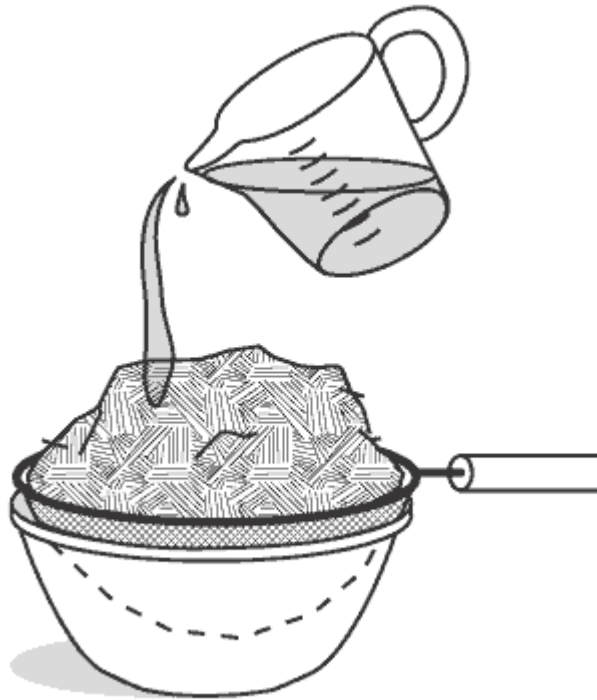
- 1. Press a piece of cheesecloth inside a fish net. Make sure the cheesecloth completely covers the



- net.
- 2. Rest the net on the rim of a bowl as shown.
 - 3. Fill the net with a handful of sphagnum moss.



- 4. Fill a measuring cup with water to the 1-cup mark. Pour the water into the net with the moss. Wait 30 seconds.



- 5. Remove the net from the bowl. Pour the water from the bowl back into the measuring cup. Record how much water is in the cup.
- 6. Clean the moss from the cheesecloth and replace it in the net.
- 7. Repeat Steps 4 through 6, testing the sod, sand, and rock samples.

When students have completed the experiment, ask the following questions: Which material is the best at absorbing water? (**Moss.**) How do you know? (**It allowed the least amount of water to flow into the bowl.**) Which material absorbed the least water? (**Rock.**) What can you say about replacing plant-filled wetlands with paved surfaces? (**The ground cannot absorb as much water, which makes the effects of flooding worse.**)

Extension idea:

Have students research recent floods in North America (such as the Mississippi River flood of 1993). Ask them to create a display about the flood including the body of water that flooded, the effects of the flood, and ways that human activity may have contributed to the flood (for example, developing land that was originally wetland habitat).