

TEACHER'S GUIDE

WATER WIZARDS

"WATER STOPPERS"

Review

Briefly remind students what they learned in the last lesson.

Purpose

The purpose of this activity is to show the student that different soils affect the movement of water.

Preparation

Before doing this activity, review "Why Is This Important?" section with students. Be sure to include a discussion of types of soils, and how water is absorbed into the soil and moves, with time, around the soil particles. Let students feel, smell, and describe how they are alike and how they are different.

Materials

3 large paper cups	sand or loose soil
3 coffee filters	clayey soil
3 glass quart jars	gravel
rubber bands	measuring cup
water	scissors
thumbtack	
watch or clock	

Experiment for "Do This..."

Let students help with this activity as much as possible.

1. Using the thumbtack, punch several holes in the bottom and around the lower part of each cup
2. Place a square filter over the bottom of each cup so it covers all the holes. Secure the filter with a rubber band.
3. Place each cup in a jar. Label the cups A, B, and C.
4. Fill Cup A half full of dry sand, Cup B half full of clay, and Cup C half full of a mixture of sand, gravel, and clay. Pack.
5. Pour 100-ml of water into each cup. Record the time when the water was first poured into each cup.
6. Record the time when the water first drips from each cup. Note the appearance of the water.
7. Allow the water to drip until finished. At the end of this time, remove the cups from the glass jars. Measure and record the amount of water in each jar. (During waiting time, let students complete the workout.)

8. Fill out the following chart on the board with students. Discuss the results.

Cup	Time		Observations
	Water In	Water Out	
A			
B			
C			

Reinforcement in "Can You Tell Me..."

Have students answer question individually or as a group. Encourage creativity. Let students complete Water Wizard Workout as time allows.

Extension

1. Review "Water Wizards Home Brew" for students. Encourage students to share with their parents and incorporate activities into their daily life.
2. Have a soil conservationist visit your class to learn more about soils and how they are formed.