

TEACHER'S GUIDE

WATER WIZARDS

AWESOME FILTER

Review

Remind students of the last activity and what they learned. Recall the movement of water around the sand, clay, and mixture.

Purpose

The purpose of this activity is to show students that filtration is a way water can be purified.

Preparation

Review "Why Is This Important?" section with students. Be sure to explain to students that this is one process which purifies groundwater naturally. Filtration is used by some cities as a water treatment process.

Materials

- 1 large glass or plastic funnel (or cut an empty milk jug in half and cut a hole in the lid).
- small pebbles
- coffee filter
- soil
- fine sand
- clean water
- muddy water
- narrow mouth glass jar

Experiment for "Do This..."

Let students help as much as possible with the activity.

1. To a large plastic or glass funnel add a coffee filter, a layer of small pebbles, then a layer of soil, and finally a layer of fine sand.
2. Pour some clean water through the funnel to allow the layers to settle and pack together.
3. Place the funnel in a narrow-mouth glass jar and pour some muddy water into the funnel. The layers will filter the mud, and clear water will pass into the jar.
4. Relate this to natural occurrence and to waste treatment plants. Explain that soil layers are nature's filter and are very important in recycling water and making it clean.

Reinforcement in "Can You Tell Me..."

Have students answer questions 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. A water-treatment plant might be visited, or a worker might be invited to visit the class.