

**Chapter 10**

Use with Section 1

**ENRICHMENT****• Surface Water****How does vegetation decrease erosion?***Complete the activity and answer the questions.***Materials**

2 shoe boxes

water in a container

plastic wrap or foil

scissors

soil

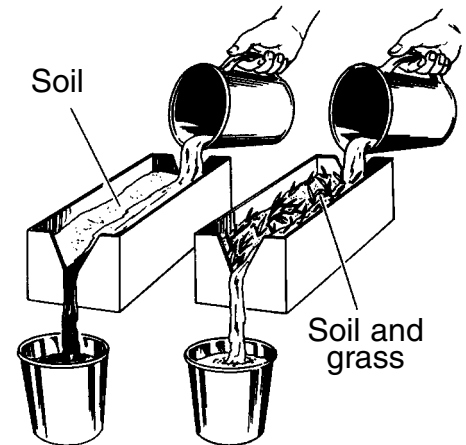
low table or desk

2 buckets

ruler

sod or grass seed

2 blocks of wood, about 2.5 cm high

**Advance Preparation**

1. Line the shoe boxes with plastic wrap or foil.
2. Fill one of the shoe boxes halfway with soil. Throw grass seed on the soil and water it. Allow the grass to grow about 5 cm before performing the activity.
3. Cut triangles out of the ends of the boxes as shown.
4. Place plastic wrap or foil under the boxes.

**Procedure**

1. Fill one shoe box about half full of soil, and fill the other shoe box half full of soil and sod.
2. Place the shoe boxes at the end of a low table or desk, with the "triangle" end extending about 7.5 cm over the edge.
3. Put buckets underneath the shoe boxes. Place a block of wood under the back of each shoe box, so that the boxes are sloping slightly toward the buckets.
4. Slowly pour about 1 L of water down each box. Pour the water at the same rate for each box.
5. Examine the water in the buckets and note which bucket contains the most sediment.
6. Repeat the activity again, but this time pour the water quickly over the soil.

**Analyze**

1. How does the rate of water flow affect the amount of erosion? \_\_\_\_\_  
\_\_\_\_\_
2. Which bucket has more sediment? \_\_\_\_\_

**Conclude and Apply**

3. How does the vegetation affect erosion? What evidence helps you draw this conclusion?  
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\_\_\_\_\_

4. Would you recommend planting vegetation in areas with exposed soil? Explain. \_\_\_\_\_  
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