

**Chapter 8**

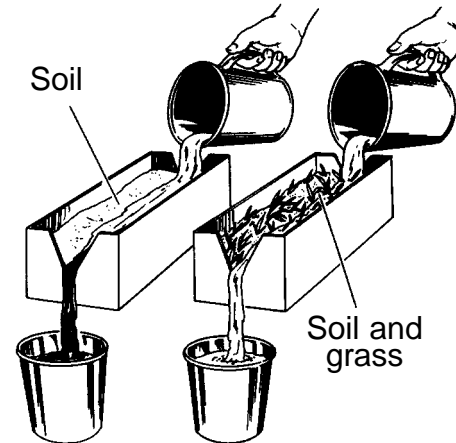
Use with Section 1

**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**

- Line the shoe boxes with plastic wrap or foil.
- 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.
- Cut triangles out of the ends of the boxes as shown.
- Place plastic wrap or foil under the boxes.

**Procedure**

- Fill one shoe box about half full of soil, and fill the other shoe box half full of soil and sod.
- 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.
- 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.
- Slowly pour about 1 L of water down each box. Pour the water at the same rate for each box.
- Examine the water in the buckets and note which bucket contains the most sediment.
- Repeat the activity again, but this time pour the water quickly over the soil.

**Analyze**

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

**Conclude and Apply**

- How does the vegetation affect erosion? What evidence helps you draw this conclusion?  
\_\_\_\_\_  
\_\_\_\_\_
- Would you recommend planting vegetation in areas with exposed soil? Explain. \_\_\_\_\_  
\_\_\_\_\_