

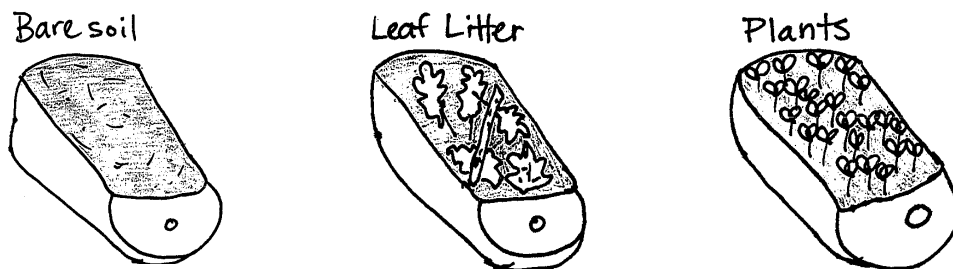
UNDERSTANDING SOIL EROSION WITH SOIL PLANTERS

(upper)

Water, wind, and glaciers can loosen, transport, and relocate particles of soil and rock. This is called **erosion**. Erosion varies depending upon a number of factors, and does not occur at the same rate in all places. Generally, the smaller the particles that are eroded, the more erosion occurs and the farther the particles can be transported. As erosion increases, it can adversely affect the quality of river water. In this investigation, you will explore one factor that affects erosion.

What To Do:

- Go to the counter and find the three soil planters: one contains bare soil, one contains leaf litter, and one contains plants.
- Before you begin, be sure each soil planter has a catch cup hanging from its neck. This will catch water that pours out of the planter.
- Pour a **small** amount of water on the planter with bare soil in it. Observe what happens to the water. Also make observations about the water that pours out into the catch cup.
- Next, pour a **small** amount of water on the planter with leaf litter in it. Observe what happens to the water. Also make observations about the water that pours out into the catch cup.
- Finally, pour a **small** amount of water on the planter with plants in it. Observe what happens to the water. Also make observations about the water that pours out into the catch cup.



Questions:

1. List the order of soil planters from cleanest to dirtiest water producers.
2. Which of the planters had the most evidence of erosion in it? What evidence led to think this?
3. What effect do you think plants have on erosion?
4. Where do you think the soil goes when you pour water on the planter with plants?
5. How can we use this information to help make the Illinois River cleaner?