

Ecosystem Modeling

by Meg Minnehan

Objective: To explore the differences among ecosystems found in a watershed and learn how they are interrelated.

Materials: Shoe box or small wash tub, dirt, cardboard, crayons.

Begin by dividing the class into groups of two to three students. Each group selects an ecosystem found in the watershed to study and model (forest, swamp, meadow, stream, marsh, tidal mud flat, etc.). Each group starts by researching its ecosystem. Particular emphasis should be placed on discovering what types of organisms live in each ecosystem and the specific adaptations they have made to their environment.

What sorts of food do the different plants and animals need? Do they spend all

of their lives in this ecosystem or just certain phases of their lives? Students should also be able to describe the most important physical traits that define their ecosystem.

Once the groups have completed their research, they begin constructing models of their ecosystems. The models can be made in a shoe box or some similarly sized container. When possible, students should be encouraged to use actual materials found in their ecosystem (mud, dirt, rocks, etc.). Cardboard cutouts or magazine pictures can be used to represent plants and animals.

When the models are complete, each group makes a presentation to the class describing their ecosystem, emphasizing how it is different, both physically and in terms of plant and animal life, from other ecosystems in the Chesapeake Bay watershed. This activity can also be enhanced by discussing how the ecosystems are interrelated.

