Birds

Hungry Birds

Post-Visit Activity, K-3

Adapted from California Environmental Education Guide, 1988

Objective

Students will compare camouflage in different habitats.

Materials

- 4 colors of toothpicks, chips, or popsicle sticks (50 of each)
- Poster board and markers

Background

Camouflage (protective coloration) is important in signaling and attracting mates and in allowing an animal to blend in with its environment to hide from predators. Protective coloration can greatly increase an animal's chance for survival. Coloration which protects an animal in one habitat may not protect it another habitat.

Procedure

1. Before you begin this activity, hide an equal number of each color of worms (toothpicks) in two different areas such as asphalt and lawn or on two different colored carpets. Mark the boundaries of each area. Additionally, for 1st to 3rd graders, design, and label two graphs on poster board with the color of "worms" versus number of “worms" eaten, one graph for each different area.

2. Tell the class they are going to pretend to be very hungry birds. Explain that they are a type of bird that likes to eat worms. Show students their worms/toothpicks, making sure they see an example of each color.

3. Explain they are going to play a searching game to gather worms. They will only have a very short time to gather worms and they can only begin gathering when you say, "It's morning!" They must then gather as many as possible. But when you say, "Stop!" they must all immediately stop collecting worms.

4. Take your class to the first site and point out the boundaries. Have your students predict which color worm they think will be the easiest/hardest to find. Why? For older students, indicate the students' predictions on your poster board.

5. Have students gather around the first site and say, "It's morning!" Allow students to gather toothpicks for about 5-10 seconds, depending on the size of your site. When you call a halt to their feeding frenzy, gather back in a group. Have students count the number of each color toothpick they found. Record each student's number.

6. Repeat steps 4 and 5 for the second site.

7. Return to the classroom and either total the numbers yourself or have the students practice their addition. Record on your graph. Compare results to predictions.

8. Introduce the vocabulary word "camouflage." Does camouflage benefit certain worms in this activity? Did different colored worms benefit in different habitats?

Extension

Discuss the peppered moth with students. Pictures of this moth can be found in most upper-level biology book, such as Biology, by Helena Curtis.

Found in England, these light-colored moths rest on lichen covered trees during the day and are well camouflaged against this background. During the mid-1880s, however, more and more dark colored peppered moths were found. At the same time, the industrial revolution was in full force and pollution was killing the lichens, leaving the tree trunks bare and dark.

Entomologists (scientists who study insects) conducted experiments and discovered that birds were eating the light-colored moths on dark, bare trunks, but leaving the dark moths. The dark moths were able to survive and reproduce in greater numbers. The dark moths were now well camouflaged while the light-colored moths were at a disadvantage.