

LEAF LIVING

OVERVIEW

To discover what life is like in a leafy world, the youngsters create a giant leaf layer and dive in. They play two games while cavorting in the leaf pile: Predator/Prey and Getting Around.



BACKGROUND



In many areas, a brilliant color display in forests, parks, and yards announces the onset of autumn. After a few weeks, the colors fade and the leaves die and drop to the ground, forming a deep, drifting, crunchy layer. This leaf layer is a place to hide, a place to hunt, a place to seek

shelter, and a source of food for a variety of small animals. Birds, mice, and shrews scratch and scurry among the leaves to look for food. Worms, snails, beetles, and an occasional spider seek protection or food under the leaves. The close observer might even spy some ants, a pill bug, or tiny mites in the leaf layer.

BIO
Microenvironments
KEY
Predator/Prey
Navigation



CHALLENGE: FIND OUT WHAT LIVING IN OR UNDER A LAYER OF LEAVES IS LIKE.

MATERIALS



For each youngster:

- 1 leaf rake (If you cannot get a rake for each youngster, some of them can use a large piece of stiff cardboard.)

For the group:

- 1 three-meter length of string*
- 1 apple

For "Branching Out":

- 1 plastic bag*
- bug boxes* or hand lenses*
- 4 thermometers*
- copies of the *OBIS Lawn Guide**
- * Available from Delta Education.

PREPARATION



Group Size. This activity is suitable for groups of up to eight participants for each leader.

Time. This is an activity for the fall. Plan on at least one hour for this activity—longer if possible. Note: Raking up leaves to make a big pile is part of the activity.

Site. You will need a site with lots of dry leaves on the ground.

Clothing. The youngsters will enjoy their under-the-leaves experience more if they do not get leaves inside their clothes. Recommend that the kids wear clothing that fits tightly around the neck and wrists. Tell the youngsters to tuck their shirttails in and to tuck their pant legs into their socks. Rubber bands around sleeves and cuffs can help to



keep the leaves out, too. Stocking caps or garments with hoods are ideal for this activity.

Safety

1. Make sure that your leaf pile contains no sharp sticks or other foreign matter.
2. If some kids are allergic to leaves or pollen, keep them out of the leaf pile. They can, however, participate in other parts of the activity.
3. In some parts of the country, ticks may inhabit leaf piles. Be aware of this possibility, and have the kids check each other for ticks after the activity. Ticks are easily removed if found quickly.

ACTION



PART ONE: MAKING THE PILE

1. Point to the layer of leaves under the autumn trees, and tell the youngsters that the layer provides a great home for small animals. Then tell the kids that they are going to make a pile of leaves that is deep enough for people, in order to find out what it is like to live in the leaves.
2. Distribute the rakes and cardboard sheets. Have the youngsters make a very large pile of leaves. Make two piles if your group has more than eight kids. A pile one meter deep and three meters on a side is about right for eight youngsters.

3. Let the kids dive and roll in the leaf pile for a few minutes. Then call them out to play the two leaf games: Predator/Prey and Getting Around. Rake the leaves back into a one-meter-deep pile, if necessary.

PART TWO: PREDATOR/PREY

A **predator** is an animal that captures and eats other animals. A **prey** is an animal that a predator eats.

1. For each round, select four youngsters: two predators and two prey. Ask the rest of the group to watch.
2. Ask the "predators" to turn around while the "prey" hide in the leaf pile.
3. When the prey are hidden, tell each predator to look the pile over and to make two strikes in an attempt to capture a prey. (A *strike* is a reach into the pile where the predator suspects a prey is hiding.) No feeling around—only a straight reach in.
4. Keep playing until everyone has had a chance to be a predator or a prey.

Prey Tell

1. How many prey were captured? What gave away their location? Movement? Noise? Breathing?
2. How did you feel when you were a prey? Was it scary? Exciting? Did you hold your breath?
3. Why would you hide from a predator in a leaf pile?
4. If you were a predator, how would you hunt in a leaf pile?

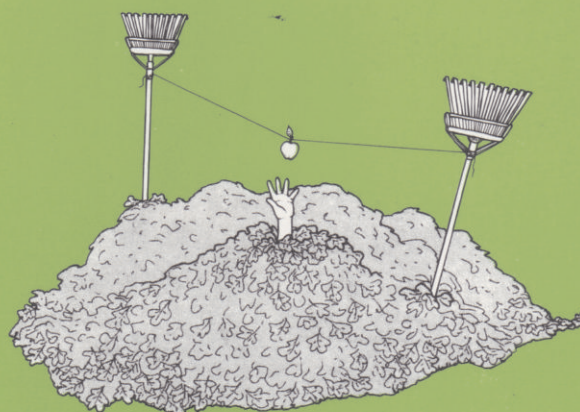
PART THREE: GETTING AROUND

1. Stick two rake handles straight down into opposite sides of the pile, and ask two kids to hold the rakes up.
2. Challenge one youngster to crawl into the pile and to wiggle on her belly to one rake handle, then turn and make it to the other handle. She must stay in the



pile—no peeking! A turn is over when the feat is accomplished or when the navigator emerges from the pile.

3. Tie a string between the two rake handles. Tie another string around the stem of an apple, and then suspend the apple directly over the pile.
4. Challenge one youngster to enter the pile from the edge and belly-crawl to a spot where he can reach up through the pile and grab the apple without looking. Let the navigator have a couple of grabs.
5. Let the youngsters try their skill at navigating in the pile of leaves as long as time and interest permit.



LEAF 'EM THINKING



1. What senses are most useful for navigating in the leaf pile?
2. What abilities would make navigating in the leaf layer easier for you? How would you change your body for easier navigation in the leaves?
3. What animals can you think of that are adapted for moving through leaves?

BRANCHING OUT



1. Ask the kids to search for leaf-layer animals in an area where the leaves have not been disturbed. Ask the youngsters to determine whether the animals are potential predators or prey. The kids might find a mouse or toad, but more likely will find spiders, moths,

grasshoppers, flies, pill bugs, and grubs. Suggest that the youngsters put several animals into a plastic bag with a leaf or two to see how the animals interact.

2. Challenge the youngsters to check out the physical environment of an undisturbed leaf pile. Have them compare the temperature inside and outside the pile with thermometers. They can check for moisture with their hands.

3. Ask the youngsters if they think the leaf pile offers protection from the elements. Send some kids into the pile and turn on a sprinkler to see if the pile protects them from rain. (Those inside should wear wet-weather gear.) Ask if the youngsters think the pile also offers protection from the wind.

4. The youngsters can use the leaf pile for a survival experiment during mild weather. If the weather permits, let the kids sleep in the leaf pile without blankets or sleeping bags.

