

Activity

4

Do you know your leaves?

CURRICULUM CONNECTIONS

Science

LEARNER OBJECTIVES

- Categorize leaves according to physical characteristics.
- Compare the characteristics of trees with similar and dissimilar leaves.

MATERIALS NEEDED

"Trees of Minnesota" section of this Guide and the identification poster, leaves from many different Minnesota trees, paper and pencils.

PREPARATION TIME

Several days of collecting leaves

ACTIVITY TIME

30-40 minutes

Overview

Students examine a variety of leaves in a cooperative activity which requires them to categorize and compare leaves from various Minnesota trees.

Background

Leaves are very important to the life of a tree. Leaves collect sunshine which provides the fuel for the process called photosynthesis. Without leaves, there would be no food, which means there would be no trees. It is a mystery why leaves look and feel different. Regardless of their size and shape, they perform a life-giving function not only for trees, but for humans as well, since leaves also process carbon dioxide and release oxygen into the atmosphere.

The Activity

1. Have the students collect leaves from many different hardwood trees at home or from a visit to a park. Put the leaves in large box.
2. Divide the class into groups of four or five students each. Give each group a bunch of leaves from the box. See if the group can decide which leaves came from the same kind of tree.

3. Once they have separated the leaves into different types, then have them examine the physical characteristics of each type. Have one student in each group record the group's observations for each leaf type using the following categories:

- texture
- size
- color
- shape

4. Have the students select the two different kinds of leaves which have the most in common and the two different kinds of leaves which seem the most different.

5. Once the students figure out what kind of tree each leaf came from, have them compare the trees as well. Do the trees with similar leaves have other similarities? Do the trees with dissimilar leaves have anything in common?

6. Closely observe the leaves that were collected and note if any were affected by predators or disease. Signs to look for include discoloration, insect bites, holes or bumps. These factors may cause a natural decline of some trees over time while enhancing the survival of others. Have students research causes of these factors.



White Oak



Red Maple