

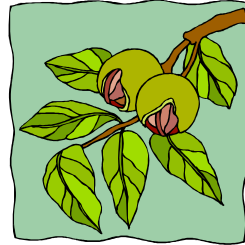
LEAF ME ALONE

BENCHMARKS and TASK

SC.A.1.1.1 The student knows that objects can be described, classified, and compared by their composition (e.g., wood or metal) and their physical properties (e.g., color, size, and shape).

SC.F.1.1.5 The student compares and describes the structural characteristics of plants and animals.

- The student observes and analyzes each part of a plant (seeds, roots, stems, leaves, flowers and/or fruit) and correlates it to a specific function.



KEY QUESTION

What is the function of leaves?

BACKGROUND INFORMATION

Leaves come in many varieties. Some are large, small, slender, or wide. Leaves can be prickly, hairy, soft, or hard. Some leaves are smooth, toothed or lobed. Leaves can be classified as simple or compound. Most leaves have two parts, the blade and the petiole. The broad, flat part of a leaf is called the blade. The petiole is the stem-like part of the leaf that joins the blade to the stem.

But all leaves change sunlight into energy through photosynthesis. The leaves are the primary food-making part of the plant. The leaves absorb carbon dioxide from the air and with water that comes through the roots of the plant, combines these elements and releases oxygen into the air.

Oxygen is necessary for all living things.

Many leaves are edible such as lettuce, spinach, field greens, parsley, and cabbage.

MATERIALS

Teacher

variety of leaves

Leaf Me Alone poem written on chart paper

Per student

My Very Own Special Leaf recording sheet

crayons

pencil

magnifier

paper clips

centimeter tape

TEACHING TIPS

1. Photosynthesis is too difficult for first grade students to understand and will be explored in fifth grade. First grade students will observe a leaf, record their observations, and discuss the purpose of leaves.
2. If this activity cannot be completed in one day, keep the leaves from drying out by placing them in a solution of 1 part glycerin to 2 parts water. Layer the leaves in a shallow pan, cover with the solution, and soak for 24 hours. Remove the leaves from the solution and press them between newspapers for 3 days.
3. Include some leaves, such as spinach and lettuce that are edible in your display.

4. Write the *Leaf Me Alone* poem on chart paper or poster board for display.

ENGAGE

1. Place a leaf in a bag and have students play *Twenty Questions* to determine what is in the bag.
2. If possible, take the students on a nature walk and have them pick up a leaf that will be their own. If not, display a variety of leaves and have each student choose one.
3. Allow students time to look at and discuss the leaves. Discuss differences they observe (e.g., color, size, shape).
4. Display and read poem, *Leaf Me Alone*. Discuss what the poem tells us about plants.
5. Ask:
What is the poem telling us is an important part of a plant? (leaves)
What do leaves make for a plant? (food)
What helps the leaf make food for the plant? (the sun)
What travels to the tip of the leaf? (water)

EXPLORE

1. Have the students observe their leaf and draw it on the activity sheet.
2. Tell the students to look at their leaf through a magnifier and add details to their drawing.
3. Have the students measure the length of their leaf using paper clips, then measure in centimeters, and record their measurements on the activity sheet.
4. Tell the students to use their senses of smell and touch and record on the activity sheet.

EXPLAIN

Have students share their observations and measurements.

Ask:

Were all of the leaves the same color?

Does your leaf look the same on both sides? If not, how are they different?

What was the measurement of the shortest leaf?

What was the measurement of the longest leaf?

Can you find a leaf that is longer than yours?

Can you find a leaf that is shorter than yours?

Can you find a leaf that is the same length as yours?

Discuss the functions of leaves. Tell the students that the leaves make food for the plant.

What are the uses of leaves? (e.g., beauty, mulch, animal habitat, eaten by insects, food)

Name some leaves that we eat.

EXTEND/APPLY

1. Play *Show Me a Leaf*:
Show Me a Leaf that has more than one blade.
Show Me a Leaf that has spots on it.
Show Me a Leaf that feels smooth, etc.
2. Create a Venn diagram with hula hoops or yarn: green, not green; scalloped edges, not scalloped edges, etc.
3. Make a leaf chain – My leaf is different from (or like) yours because...

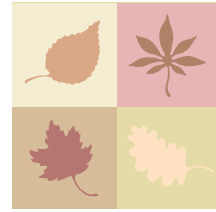
LEAF ME ALONE

Please don't pull, cut or tear me,
for a plant to live, I'm necessary.
Whether I'm a bean, apple or pear,
put me in the sun for proper care.
In order to make food for a plant to grow,
I spread my face for the sun to glow.
My fine delicate veins do not rip,
for the water must go to my very tip.
If all these steps you do take,
a healthy, beautiful plant I will make.

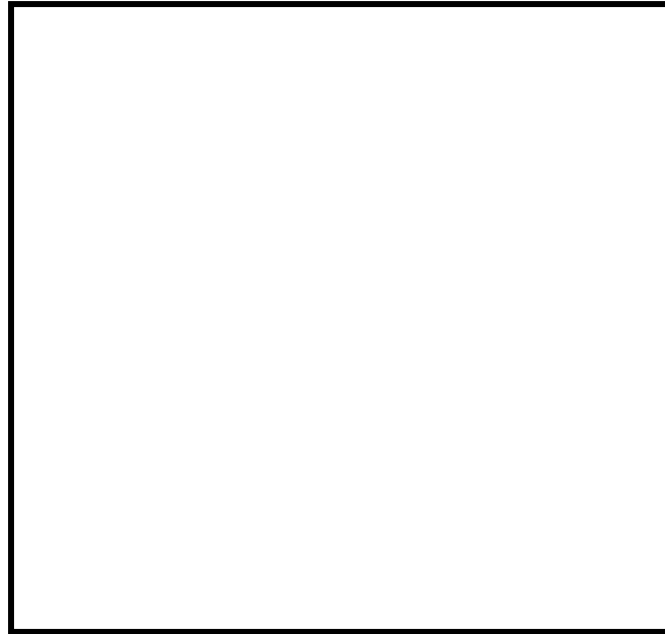
by **Dianne Billen**



My Very Own Special Leaf



My leaf looks like this:



The color of my leaf is _____ .

My leaf is _____ paper clips long.

My leaf is _____ centimeters long.

My leaf smells like _____ .

My leaf feels like _____ .

I found my leaf _____ .

Leaves are for _____ .

_____ .