

PLANT HABITATS

Exploring Plant Habitats and Requirements for Plant Growth Lesson Plan

Objectives:

1. Students will be able to list what plants need to live and grow, and how plant habitats differ for many plant species.

Preparation Time: 5–10 minutes

Teaching Time: 20–25 minutes

Clean-up Time: 5–10 minutes

Materials:

- The Plant Proponent* Wanted Advertisements
- Pencils, crayons, colored pencils, or markers

Methods:

- I. What is a habitat? A place where a plant or animal naturally lives and grows. Habitats provide food, water, and space to live for both plants and animals.
- II. What do plants need to live and grow? Soil, water, air, and light.
- III. What does the soil provide for plants? A place to live and nutrients that act like plant vitamins
- IV. What does water provide for plants? Helps the plants' insides stay healthy just like our bodies need water for all of our organs to function properly.
- V. What does the air provide for plants? CO₂ to breathe. Just like our lungs take in oxygen to help us breathe, plants have special parts called stomates that take in CO₂ for them to breathe. Plants work for us, and we work for plants; we breathe in the oxygen that plants breathe out, and plants breathe in the CO₂ that we breathe out. We're a perfect pair!
- VI. What does light provide for plants? Sunlight provides all of the energy that plants need to grow. Plants have special parts called chloroplasts that use the energy to make the plant grow tall and strong.
- VII. Even though almost all plants need soil, water, air, and light to live and grow, every plant is different and requires different amounts of soil, water, air, and light. Some plants are very unique and need more or less of things.
 - a. A cactus doesn't need very much water which is good because in the desert, there isn't a lot of water anyway.
 - b. A water lily needs a lot of water, but very little or no soil. It's home is not the land, but rather the water.
 - c. A sunflower needs a lot of sunlight to grow tall and strong, and that's probably why they are even called sunflowers.
- VIII. Have the students pretend to work for a newspaper called *The Plant Proponent*. Explain that it is their job to help their favorite plant find a suitable place to live. Have them draw their favorite plant and write a brief summary of the desired habitat for their plant as well as any requirements the plant may need. For example, a student whose favorite plant is a cactus may write, "WANTED! A

western United States desert for year-round occupancy. Prefer a site with full sun.” Another example may be a water lily, in which the student may write, “WANTED! A calm lake hideaway with sunlight and little boat traffic. Water is a must. Prefer a site that offers the occasional dragonfly.”

Evaluation Questions:

1. What do plants need to live and grow?
2. Why might one plant live in a different habitat than another?

Adapted from:

Schwartz, L. (1990). *Earth book for kids*. Santa Barbara, CA: The Learning Works, Inc.