

Nature Sleuth

Grades: 2-5

NGSS: LSI.A: Structure and Function
LSI.D: Information Processing

Subject: Leaves
Habitat
Research

Skills: Research, observation, inference, computer skills

Materials: Fresh leaves, dark color crayons, paper, local plant life books (optional)

BACKGROUND

In biology, habitat can refer to a variety of spaces. In ecology, a habitat can designate the resources and area used by a specific species, or it can refer to an entire environment such as a pine forest. For a biologist studying something small, like termites, habitat might refer to a single log or tree stump. Ecosystems are dynamic habitats made up of interactions between plant, animal, and microorganism communities and their non-living, or abiotic, environment. Biomes offer a broad way to categorize different habitats. The five biomes are aquatic, forest, desert, tundra, and grassland. Factors such as temperature, weather, and location determine the classification of a biome and influence what types of organisms live there. Different organisms can be found in each biome and habitat.



ACTIVITY

1. Go over the background information with your students.
2. Tell students to pick up an assortment of leaves from the ground.
3. Return to the classroom and distribute drawing materials.
4. Have students make a leaf rubbing by placing their leaves underneath a sheet of paper. Instruct students to remove the wrapping from a dark color crayon and, using the entire length of the crayon, lightly rub it over a leaf until the entire outline of the leaf shows through the paper.
5. Using the leaf and the drawing, have students use a book or computer to research what kind of plant produces that leaf. Have students label their drawings with the correct species.

Expand the Activity

Have students return outside and photograph or write down details about different organisms, including insects and animals. Tell them to note the climate as well. Encourage them to be respectful of the organisms by limiting the changes they make to the environment. Return to their reference books or computers and have them research the different organisms they documented. Have students make an educated guess about what biome they live in and use the computers to verify their hypothesis. You can reference Maria Sibylla Merian, as her drawings are still used among scientists today!



This activity is excerpted from the Teacher's Guide to:

Women in Biology

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Name: _____

Date: _____

Observation Worksheet

Project Title: _____

Predictions: _____

Observations:

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Conclusions: _____
