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## Growing Native: Native Plants—Living in Communities

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- Summary:** This lesson will introduce students to native plant and animal species in their region, and will help students recognize the native plant communities in which they are found. Students will use research and plant and animal identification skills to learn which plant and wildlife communities are native to their region. Students will also use brainstorming, teamwork, communication and artistic skills to develop a mural of a plant and animal community native to their region. This knowledge is a building block to help students prepare for the “Native Plants: Living in Communities Just like You and Me” field study visit and for establishing a native plant community within their own community.
- Objective:** Students will discover the concept of a community. Students will learn to identify plants and plant communities that are native to their region. This activity will help students understand vegetation succession and the importance of native plant communities as wildlife habitat.
- Grades:** 6-8
- Subject:** Science, social studies, language, art
- Skills:** Research, creative thinking, communication, organization, and teamwork
- Materials:** Pencil; paper; art supplies; lists of regional native plant and animal species; internet access (optional)
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### BACKGROUND

Vegetation consists of all the plant species in a given region. Plant ecologists describe and map vegetation by identifying different plant species and grouping them together in plant communities. To begin to understand the vegetation of a region, students may be asked to describe the plant species common to that region. Vegetation is described by its primary growth form, which is the dominant size and structure of the most common plant species in the plant community. For instance the primary growth form of a forest community is a tree.

Plant species live together in plant communities. A plant community is a group of plants that usually grow together in a habitat. The same species occur together wherever a particular habitat exists. The types of plant communities that grow in particular habitat are related to many factors, which include moisture, climate and soil type.

Habitat affects the type of plant community that dominates a region. As habitat changes, plant communities will change. Eastern deciduous forest is dominated by broad-leaf deciduous tree



species, and it is found in the northeast region of the North American continent. As you travel farther north into Maine and Canada, the climate grows colder and the habitat changes, these changes in habitat (colder temperature, shorter growing season) favor the growth of needle leaved evergreen trees. These distinct forest communities are located in two different regions of the continent due to changes in habitat that include differences in climate and other factors such as geology and soil type.

### Activity

1. Begin with a class discussion on what comprises a human community. Encourage students to think about their block, neighborhood, school, religious institution, city, state, country and the global community. Identify what humans **need** to live as defined as “will we die if we don’t have \_\_\_\_\_?” Discuss interdependence in the human community using questions such as “what if we didn’t have farmers to produce our food or roads on which to drive”
2. Have students to describe natural areas within their community. Make a list of those places on the board. Ask the students what type of plants are growing there, are there trees, shrubs, wildflowers, grasses or aquatic plants? Make a list of characteristics which those plants share, are the plants tall or short? Do they have deciduous or evergreen leaves?  
Are they woody or herbaceous? Have the students describe the most dominant plant species in the natural area.
3. Ask a speaker from your state native plant society, wildlife heritage program or other natural resources professional to come to the class and give a talk on native plant communities and the animals that depend on them. Ask them to bring any publications or educational materials they have. Potential native plant communities may include forests, meadows and wetlands; or there may be more specialized ecosystems in your region, related to the soil conditions, such as serpentine barrens or fens.
4. Divide the students into teams and assign one plant community for each team.
5. Have the students research their native plant community. They can accomplish this through researching information at the library and on the internet. They can begin by going to <[www.wildlifehc.org/managementtools/backyard](http://www.wildlifehc.org/managementtools/backyard)>, which provides information on native plants by state. Students should answer the following questions:
  - a) What are the dominant types of native plants in the community?
  - b) What are the types of wildlife that live in this plant community?
  - c) What habitat components (food, water, shelter, space) are in this community? To illustrate this concept students should list the four habitat components and compare the features of their plant community to it. For instance, a woodpecker lives in the



cavity of a dead tree, which would be found in a forest; a mallard duck lives in a marsh or a stream.

- d) Draw a mural depicting the food web and describing the interdependent relationships between plants and animals, and animals and animals.
  - e) Have each student choose a plant or animal in the community and write a paragraph describing what would happen in the food web if the species was missing.
6. Ask each team to give a presentation on their native plant community to the class. In summary compare each of the plant communities presented, to the list of community sites generated in the first class discussion about natural areas within their community.
  7. Discuss as a class what would happen if the native plant communities developed into a residential area or commercial district.