LESSON 29

Adopt-a-Nature Trail

Grade level: 2-8
Subject Areas: Biology, language arts, visual arts, technology
Duration: Three or four 30-minute sessions, plus travel time to field site if necessary
Setting: Classroom and an outdoor site such as schoolyard or a nearby park with native and non-native plants.
Season: Spring, Summer, Fall
Conceptual Framework Topics: Species, classification, identification, plant ecology, invasive species

OBJECTIVES

Students will know how to identify local plants and their status (native or non-native, invasive, etc.) and values. They will become skilled at sharing their knowledge with their community through a nature trail with plant labels and signs.

METHOD

Students learn about plants in their schoolyard or nearby neighborhood. They research their plant and make simple signs to label plants they identify, with information about the plant, to teach other students or members of their community about local plants, including invasive species.

MATERIALS

- ✎ Plant identification guides
- ✎ **Plant Information Sheet**
- ✎ Sign-making materials (use these or others you prefer): Cardboard, clear contact paper, markers, computer and printer, wooden dowels

BACKGROUND INFORMATION

An important part of science is communicating to others what you have learned. This communication can take many different forms. On many public and some private lands, visitors can learn about the environment through interpretive signs or nature walks, giving them the opportunity to see and learn about local organisms in a natural setting. These direct experiences help connect participants with the natural heritage of their local area. It also makes it more likely for them to remember what they have learned, and want to take part in the stewardship of local resources.

Montana has a wide variety of native flora, ranging from the vegetation of the moist old forests in the northwestern part of the state to the dry prairie grasslands in the east. Montana also has 34 plant species listed as noxious weeds. There are other species that show invasive tendencies, but have not yet colonized sites in Montana. Recognizing local, common plants is a first step in understanding the ecology of the landscape and the challenges faced in managing invasive weeds.

PROCEDURE

Ahead of Time: Students should be familiar with the basic terms related to weeds and plants. ***Lesson 10: Know Your Neighbors*** and ***Lesson 13: A Weed by Any Other Name***, from this guide can be used to introduce these terms .

1. Select a site such as your schoolyard or a nearby park or other public space where there is a variety of plant species (ideally native plant species and perhaps

Extensions
Have students brainstorm ideas to reduce invasive plants and make their nature trail better for native or other desirable plants. Related lessons from this guide include ***Lesson 41: Pulling Together*** and ***Lesson 44: The Cycle of Restoration.***

some invasive weeds as well), and obtain permission to place small "interpretive signs" at plants on the site. You may want to make signs that will be in place for a long time, or you may want to make a temporary "display" of signs that will be removed after a determined amount of time. For example, if you do this activity in the spring, you may decide that signs will be removed at the end of the school year or the summer.

2. Visit the site with your students. Have each student or small group of students select a plant and identify it using a plant guide book or weed identification materials (see Resources section for ideas). Try to select plants that are along a path or all in an area that can easily be traversed from one plant to another.

3. Back in the classroom, have your students brainstorm ideas about what kinds of information they think would be important to learn and teach about their plant. List these on the board, and if you wish to have them use the Plant Information Sheets provided, have them copy that list onto their sheet.

4. Now your students are ready to research their plant. Have them use guide books and/or internet resources such as visit **http://montana.plant-life.org/index.html** or **http://plants.usda.gov** to gather the information they decided would be important.

5. Once they have researched and recorded their information, your class will need to decide how to present it on small signs that will be placed at the plants. You may want to have each student or team design a general sign format and have a contest to decide which one to choose. Or you can do it as a group, using the following questions to guide the process:

a. What shape should our signs be?

b. How big should our signs be?

c. Will they be printed or handwritten? How big should the writing be?

d. What color(s) will we use?

e. What materials will we make our signs from?

f. How will we protect them from rain?

Very simple signs can be made from flat cardboard, cut to dimension and covered with plastic sheet protectors or clear contact paper. Nail or tack these to dowels or flat sticks to place in the ground.

6. After your signs are completed and in place, have your students take another class, your principal, their parents, or other members of the community along the plant "path," with each student or group explaining what they have learned about their plant.

Name _____

What I Want to Learn About My Plant:

COMMON NAME: _____

SCIENTIFIC NAME: _____

IS IT (Circle all that apply):

NATIVE NON-NATIVE INVASIVE NOXIOUS

How is my plant important to my community? (Does if provide food, shelter, or another resource for local animals, including insects or birds? Is it used by people or livestock? If non-native, does it cause any problems for people or the natural world?)

What are some characteristics of my plant? (Does it grow fast or slowly? How does it reproduce? What kind of habitat does it like?)