# Field Notes

## Method

Students will practice taking field notes while observing an invasive plant.

## **Getting Ready**

1. Find samples of field notes on the Internet or at a library. See references in *Finding Out More!* on page 37.

## Introducing the Activity

Sketching is a great pastime, but that's not all it is! Sketching can help people relax, record valuable information, express deep feelings, and remember details. Sketching is particularly valuable for people who enjoy spending time outdoors.

Field biologists engage in a more precise form of sketching and writing called field notes. Writing good field notes is a skill that can only be developed and improved through practice. The notes that field biologists make record their observations so they can remember them more fully and refer back to them as needed. Field notes can provide qualitative and quantitative data for use in asking and answering research questions.

## **Doing the Activity**

- Think about the value of field notes. For hundreds of years, scientists, naturalists, and explorers have been making sketches and jotting down observations to document new species, rare species, and unusual variations in species. Lewis and Clark didn't just explore, they documented amazing plant and animal life for people who would never see the western areas of our continent! Look at the works of Lewis and Clark, Audubon, or other early explorers, which are available on the Internet and in books.
- 2. Look at the samples included in this activity. See pages 37 38.
- 3. Try making field notes. Ask students to find "weedy" plants near their homes and take field notes about them. Alternatively, you can conduct this activity on the school grounds or on a field trip. Tell students to model their field notes after the samples you looked at in books, on the Internet, and on pages 37 38. Sketches should include distinguishing features, color attributes, and different angles. Narratives must accompany their sketches. They should describe how the plants look, where they live, and what the students observed. Younger students can dictate their narratives to older student helpers.



#### Objectives

- Discover the value of natural history sketches and notes.
- Observe and describe a plant using a basic field note format.
- Practice and improve observation skills (collecting information, quantifying information, and observing patterns in nature).

#### Grades

2 – adult

Group Size

Activity Time One 50-minute period plus homework

### Setting

Classroom and outdoors

#### Materials

- Internet access or reference books
- Writing surfaces
- Notebooks
- Pencils

Connections

See next page.

#### Academic Standards

Grades 2 - 4

- English Language Arts: B.4.1
- Science: A.4.3, C.4.5

Grades 5 - 8

- English Language Arts: B.8.1
- Science: A.8.3, B.8.5, C.8.2

#### Grades 9 - 12

- English Language Arts: B.12.1
- Science: A.12.6, B.12.4

#### Scout Connections

- Boy Scouts: Environmental Science
- Junior Girl Scouts: Hiker, Outdoor Creativity, Wildlife, Your Outdoor Surroundings
- Cadette and Senior Girl Scouts: Wildlife

## Assessing the Learning

Students should complete self-evaluations of their field notes. The evaluations should list what they did well, what they liked about the process, and what they could improve. They should also evaluate at least two of their classmate's field notes. Encourage students to learn from each other and to make constructive comments.

Grades should be based on the criteria established in class. Field notes should include these features:

- Name of observer
- Date and time
- Specific description of the location so someone else can find the same area (e.g., trail, road, county)
- Written description
- Sketch of plant in color or with color notations

## **Extending the Learning**

**Compare botanical illustrations with artistic representations.** People sketch and paint plants for a variety of reasons. While early botanical illustrations were sometimes more art than science, they are very different today. Botanical illustrators know that their art may be used as an aid to identification. Colors must be accurate and plant parts must be drawn to scale. Other artists who paint plants might be interested in capturing the essence of the plant. They don't need to include every plant part. They are free to emphasize the flowers or whatever they find aesthetically pleasing. Challenge your students to find samples of early botanical drawings, current botanical illustrations, and artistic representations of the same plant on the Internet. Compare them. Ask students which type of art they would prefer to create.

**Create personal field guides.** Each student can make a field guide to common plants in your schoolyard or a nearby natural area. Suggest students use a spiral notebook. Dedicate one page for each plant. Include a sketch, leaf rubbing, or pressed leaf. Use tape to attach seeds or twigs. Students should add hints and notes that help them remember each plant.

## **Finding Out More!**

The Boy Who Drew Birds: A Story of John James Audubon. Jacqueline Davies. 2004. This book tells of the young Audubon and how his youthful hobbies inspired his life work.

**Drawing from Nature**. Jim Arnosky. 1982. This book shows how to draw water, land, plants, and animals.

**The Journals of Lewis and Clark.** American Philosophical Society. 2005. This online journal chronicles the expedition. <a href="http://amphilsoc.org/library/exhibits/treasures/landc.htm">http://amphilsoc.org/library/exhibits/treasures/landc.htm</a>

**Plants on the Trail with Lewis and Clark**. Dorothy Hinshaw Patent. 2003. This book describes the journey of Lewis and Clark throughout the western United States. The focus is on the plants they cataloged, the plants' uses for food and medicine, and the plant lore of Native American people.



#### Student page - elementary

