Using Plant Field Guides

Overview
Students will explore field guides by identifying local plant species and their characteristics.

California Science Standards
Grade 6: 7.b.-I&E
Grade 7: 7.a.c.-I&E

Oregon Science Standards
Grade 8: 1L.1

National Standards
Content Standard A: Scientific Inquiry

Materials Included
- Student Journal
- Plant focus cards
- *Common Plants of the Upper Klamath Basin*

Activity Time
Preparation: 5 min.
Activity Time: 30-40 min.

Best Season
Spring/Summer

Vocabulary
- Habitat
- Conifer
- Perennials
- Calyx
- Glume
- Lemma
- Inflorescence
- Stamen, Pistil
- Ovary

Grade Level: 3rd-12th (O.S.S.: 8th) (C.S.S: 6th & 7th)

Learning Objectives

Students will:

- Examine field guides
- Use field guides when searching for common plants
- Describe why a field guide is a critical tool in identifying plants

Background Information

We are surrounded by plants. They grow everywhere! They can be found in and around the water, our yards and the forests and mountains. Have you ever seen a plant and wondered what kind of plant it was, or if it was edible or even endangered or rare? Plants can even be toxic to animals and people. Field guides are indispensable in supplying information on the plants you are curious about. Field guides are typically created for a particular region and include information about the organisms found there. There are a variety of field guides for observers of all ages and capabilities. Before you set out on a hike, bring along a plant field guide for the area you will be hiking through. Included in this kit is the book ***Common Plants of the Upper Klamath Basin***, written by the Klamath Basin Chapter of the Native Plant Society of Oregon.

Common Plants of the Upper Klamath Basin includes an overview of the Upper Klamath Basin covering watersheds, climate, soils, and habitat types with dominate species found there. The guide has over 450 color photographs and is arranged in 5 major groups*: 1) Ferns and Horsetails; 2) Conifers; 3) Flowers, Hardwood Trees, and Shrubs; 4) Grasses and Grass-like Plants; and 5) Lichens, Bryophytes, and Blue-green algae.* In the back of the book there is a list of scientific names, common names, and a glossary followed with line drawings and a list of "Places to see Wildflowers."

In this activity have the students practice using this plant field guide by putting the included pictures of plants around the room. The student or group of students then pick a focus plant to identify and record information about it. Next use the field guide while hiking on a birding trail or around the school grounds. As with any new tool, practice makes using it easier each time.

Lesson Plan

Getting Ready!

1. Read background information and review *Common Plants of the Upper Klamath Basin.*
2. Make copies of *Student Journal: Using Plant Field Guides.*
3. Set out the included Plant Focus cards under the Habitat signs.

Discuss!

1. Ask students if they know (or can figure out by its name) what a plant field guide is and what it is used for. *A field guide is a critical tool biologists use to identify organisms when outdoors (in the field).*
2. Let students know they will become Plant ID experts by using an exciting and critical tool used in plant studies.
3. Assign one field guide per 1-3 students.
4. Have students spend about 2-3 minutes looking through the guide.
5. Discuss the following questions as a class: How is the field guide organized? *The field guide groups plants by similar characteristics. For instance, lichens, bryophytes and algae are grouped together.*
   How would you locate more information about a plant you didn't recognize using the field guide? *The useful ways include: looking at pages 4 and 5 of the guide under habitats, look at the pictures of conifer cones on page 8, and flipping through the pictures in each section.*

Explore!

1. Give each student a Student Journal.
2. Have students spend about 5-10 minutes looking through the field guide and answering questions in their journal sheet.

Investigate!

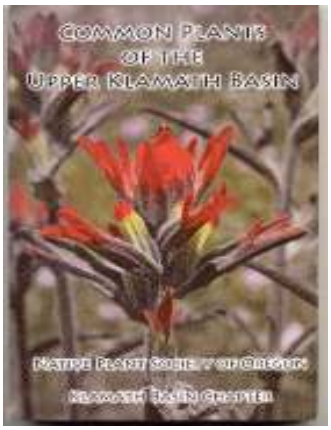
1. Have each student or groups of students locate a plant focus card.
2. Have students spend about 10-15 minutes looking up their species in the plant field guide. Ask students to learn as much as they can on their focus plant so they can become the expert on their plant! Have them record information on the journal sheet.
3. After the time has elapsed have students show their plant card and share some interesting facts they learned about their species.

Follow-up!

1. Ask students to do research and share additional information they found about their plant.
2. Ask students 2-3 questions to recap the lesson (see right panel).

Take a Hike!

Take students on a nature hike along a Crater Lake National Park trail (see map & brochure in kit) and have them use field guides to identify plants. Ask students to share information about their focus plant during the hike!



Suggested Questions

What information can you gather from using a plant field guide?

Where can you find places to see Wildflowers in Oregon?

What other types of field guides might exist?