Identifying Species

Students select an area, identify the species living there, and complete a species inventory.

GRADES
3 - 5

SUBJECTS
Biology

CONTENTS
5 Images

OVERVIEW

Students select an area, identify the species living there, and complete a species inventory.

For the complete activity with media resources, visit:
http://www.nationalgeographic.org/activity/identifying-species/

Program
biobltiz

DIRECTIONS

1. Have students look at the photo gallery and illustration.
Show students the photo gallery. Ask: What are the students doing? Tell students that they are identifying species in the field. Then have students look at the illustration of the fox and the wolf. Explain that they are both related to the domestic dog, so they share some common traits, or characteristics. But some physical characteristics set them apart. Foxes have larger
ears, thinner legs, smaller paws, and a fluffier tail. Foxes are also smaller in length, height, and weight than wolves. Ask: Which one is the fox?

2. Have students choose an area.
Ask students to select a familiar “habitat,” such as a classroom, home, or playground. Explain that they will use observation and recording skills to complete a species inventory of this area.

3. Review types of organisms.
Review with students the types of living organisms they might look for, including different species of plants, trees, grasses, mammals, reptiles, insects, or birds. List their ideas on the board.

4. Have students brainstorm additional types of organisms.
Ask students to brainstorm and think about other organisms that might be in the environment but are harder to spot and identify without tools such as microscopes; for example, fungus, bacteria, or viruses. Add their ideas to the list on the board.

5. Have students take notes and use resources to identify species.
Have students take notes on writing paper as they identify organisms in their selected “habitat.” Remind students that finding and identifying are often separate steps. Encourage students to use the library or other resources to identify the species they find. Have them add sketches and labels to their notes.

6. Have students reflect on their species identification.
Ask students to discuss how they identified species. Have them communicate the details that lead to their identification; for example, “I saw a bug and counted eight legs, so I knew it was a spider.”

OBJECTIVES

Subjects & Disciplines

Biology

Learning Objectives

Students will:
• select an area and identify the species living in an area
• complete a species inventory

Teaching Approach

• Learning-for-use

Teaching Methods

• Discussions
• Research

Skills Summary

This activity targets the following skills:

• Critical Thinking Skills
  • Applying
  • Understanding

National Standards, Principles, and Practices

NATIONAL SCIENCE EDUCATION STANDARDS

• (K-4) Standard C-1:
The characteristics of organisms

Preparation

What You’ll Need

MATERIALS YOU PROVIDE

• Pencils
• Pens
REQUIRED TECHNOLOGY

- Internet Access: Optional
- Tech Setup: 1 computer per classroom, Projector

PHYSICAL SPACE

- Classroom

GROUPING

- Large-group instruction

BACKGROUND & VOCABULARY

Background Information

A BioBlitz is a way for communities to learn about the biological diversity of a geographical area and to better understand how to protect the species found at that location. In order to undertake a BioBlitz, students need to have a specific set of skills. These skills involve observing natural phenomena, identifying different species of organisms, classifying them into categories, and mapping the data for conservation and management in the future. Scientists identify species by examining physical characteristics.

Prior Knowledge


Recommended Prior Activities

- None

Vocabulary

<table>
<thead>
<tr>
<th>Term</th>
<th>Part of Speech</th>
<th>Definition</th>
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<tbody>
<tr>
<td>bioblitz</td>
<td>noun</td>
<td>a field study in which groups of scientists and citizens study and inventory all the different kinds of living organisms within a given area.</td>
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For Further Exploration

Websites

- National Geographic: BioBlitz