Encyclopedia of Life
education.eol.org

Lesson Overview: Bioblitz Skillbuilders

Grades: 2-5

Big Idea/Learning Goal

How can we use the skills of a naturalist to discover and understand biodiversity?

Essential Questions

- How can we use descriptive words and information to **observe** organisms?
- How can we use field guides to **identify** birds based on physical characteristics?
- *How* diverse is biodiversity?
- How do we **differentiate** among so many organisms?
- How can we **practice** observation and classification **skills** to identify real organisms?

Objectives

- Students will **develop observation skills** by describing, interpreting and drawing organisms.
- Students will **identify** organisms by observing field markings and using field guides.
- Students will **classify** organisms by organizing organisms according to different characteristics.
- Students will **practice field methods** including using binoculars and magnifying glasses, taking measurements, recording data, and using field guides.
- Students **explore misconceptions about biodiversity** by hypothesizing the number of animal species and comparing to scientific estimates.

Assessments

- Questioning/discussions
- Identifying birds and using dichotomous keys
- Field/classroom notes

Activities

1. Meet a Creature
2. ID that Bird Using Field Guides
3. How diverse is Biodiversity?
4. Modeling Classification
5. ID Using Dichotomous Keys

Next Generation Science Standards

Performance Expectations

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.

2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

3-LS3-1: Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.

3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.

4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

Science and Engineering Practices

- Asking Questions and Defining Problems
- Developing and Using Models
- Analyzing and Interpreting Data
- Constructing Explanations and Designing Solutions
- Obtaining, Evaluating, and Communicating Information

This activity was developed by the Encyclopedia of Life Learning + Education Group as part of the Okaloosa SCIENCE grant, supported by the Department of Defense Education Activity (DoDEA) under Award No. H#1254-14-1-0004. Opinions, interpretations, conclusions, and recommendations are those of the author and are not necessarily endorsed by the Department of Defense. Learn more about this grant at: www.okaloosaschools.com/okaloosascience/