



Lesson Overview: Bioblitz Skillbuilders

Grades: 6-8

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 will **hypothesize** the number of animal species and **compare** to scientific estimates.
- Students will **explore** the various groups of animals
- Students will apply prior knowledge of observation and classification as they **practice** using a dichotomous key to identify trees.

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

MS-LS4-1. Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.

MS-LS4-2. Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

Connections to Nature of Science

Scientific Knowledge Assumes an Order and Consistency in Natural Systems: Science assumes that objects and events in natural systems occur in consistent patterns that are understandable through measurement and observation. (MS-LS4-1),(MS-LS4-2)

Science and Engineering Practices

- Asking Questions and Defining Problems
- Developing and Using Models
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Constructing Explanations and Designing Solutions
- Engaging in Argument from Evidence
- Obtaining, Evaluating, and Communicating Information



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