

Volunteer Teaching Outline: Forest Birds

The Northern Forest, with its many layers of vegetation and abundance of insect prey, provides food and nesting grounds for a wide variety of birds. Whether migratory or resident, birds play an important role in the forest for they help to keep insect populations in control. In the spring, forest birds call for mates and set up territories, filling the woods with a chorus of lively birdsong. A pleasure to see and hear, these jewels of the forest are a valuable part of the forest ecosystem.

UNIT VOCABULARY

Inhabitant	Migratory
Forest layers	Understory
Canopy	Forest floor
Shrub	Prey
Predator	Territory
Field marks	

SUGGESTED OUTDOOR ACTIVITIES

Forest Food Scramble
Field Mark Match
Life in Layers
Binocular Practice
Forest Birds Foray
Songbird Marco Polo
Journal Activity
Closing Thoughts
Upper Grades Challenge: Clock Directions

BOOKS FOR KIDS

Mania, Cathy and Robert C. Mania, Jr., *Woodpecker in the Backyard*, Franklin Watts Publishing, 2000. (Informational; Age 9 and up; Grade 4 and up)
Rabe, Tish, *Fine Feathered Friends: All About Birds*, Random House Books for Young Readers, 1998. (Informational; Age 4-8; Grade K-3)
Sill, Cathryn and John Sill (Illustrator), *About Birds: A Guide for Children*, Peachtree Publishers, 2014. (Informational; Grade K-2)
Thompson, III, Bill and Julie Zickefoose (Illustrator), *Young Birders Guide*, Houghton-Mifflin, 2008. (Informational; Age 8-12; Grade 3 and up)

THIS MONTH'S ACTIVITIES

Puppet Show: meet some forest inhabitants and learn how they are linked in a food web.

Forest Food Scramble: model how birds avoid competition by foraging in different layers of the forest.

Field Mark Match: meet some forest bird species and learn their special field marks.

Life in Layers: see how different birds occupy specific layers in a forest where they find food or nesting sites.

Binocular Practice: learn some techniques for using binoculars to watch and identify birds.

Forest Birds Foray: look for birds in a forest and practice identifying them by sight.

Songbird Marco Polo: model how vocalizing helps birds to attract mates, defend territory and stay in contact with others of their kind.

Journal Activity: draw a cross-sectional picture of the forest, noting the locations of singing birds.

Closing Thoughts: reflect on the birds that live in our forests and what makes each kind unique.

Upper Grades Challenge: Clock Directions: use the positions of numbers on a clock to locate objects for others to see.



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FOREST BIRDS ALIGNMENT WITH NEXT GENERATION SCIENCE STANDARDS

The activities in this unit help children understand the basic concepts in the Disciplinary Core Ideas listed here. You can use the following list as a guide for lesson planning. These Disciplinary Core Ideas are taken from Grade Band Endpoints in *A Framework for K-12 Science Education*. Additionally, our activities give children opportunities to engage in many of the Science and Engineering Practices and reflect on the Crosscutting Concepts as identified in the Next Generation Science Standards.

Grades K-2 Disciplinary Core Ideas

- **LS1A:** All organisms have external parts. p.144
- **LS1C:** All animals need food in order to live and grow. They obtain their food from plants or from other animals. p.147
- **LS2A:** Animals depend on their surroundings to get what they need, including food, water, shelter, and a favorable temperature. Animals depend on plants or other animals for food. Animals can move around but plants cannot. p.151
- **LS2B:** Organisms obtain the materials they need to grow and survive from the environment. p.153
- **LS3A:** Organisms have characteristics that can be similar or different. p.158
- **LS3B:** Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways. p.160
- **LS4D:** There are many different kinds of living things in any area, and they exist in different places on land and in water. p.166

Grades 3-5 Disciplinary Core Ideas

- **PS4C:** Lenses can be used to make eyeglasses, telescopes, or microscopes in order to extend what can be seen. The design of such instruments is based on understanding how the path of light bends at the surface of a lens. p.137
- **LS1A:** Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior and reproduction. p.144
- **LS1C:** Animals and plants alike generally need to take in air and water, animals must take in food. p.148
- **LS2A:** Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. p.151-152
- **LS3A:** Many characteristics of organisms are inherited from their parents. p.158
- **LS4D:** Scientists have identified and classified many plants and animals. p.167

Grades 6-8 Disciplinary Core Ideas

- **LS1C:** Animals obtain food from eating plants or eating other animals. p.148
- **LS2A:** Organisms and populations of organisms are dependent on their environmental interactions both with other living things and with nonliving factors. Growth of organisms and population increases are limited by access to resources. In any ecosystem, organisms and populations with similar requirements for food, water, oxygen, or other resources may compete with each other for limited resources; access to which consequently constrains their growth and reproduction. p.152
- **LS2B:** Food webs are models that demonstrate how matter and energy is transferred between producers (generally plants and other organisms that engage in photosynthesis), consumers, and decomposers as the three groups interact – primarily for food – within an ecosystem. p.153
- **LS4D:** Biodiversity is the wide range of existing life forms that have adapted to the variety of conditions on Earth, from terrestrial to marine ecosystems. p.167

FOREST BIRDS ALIGNMENT WITH COMMON CORE STANDARDS

In addition to science content, activities in this unit also can help students to practice the following mathematics and language arts concepts. The Common Core Standards listed here are in addition to the ones that our activities typically address, as listed in the Four Winds document, *The Nature Program: Alignment with Learning Standards*.

Grades K-2 Common Core Standards

- **Mathematics Standard K.CC:** Count to 100 by ones and tens. Understand the relationship between numbers and quantities; connect counting to cardinality. Count to answer “how many?” questions about as many as 20 things.
- **Mathematics Standard K.CC:** Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.
- **Mathematics Standard 2.OA:** Fluently add and subtract within 20 using mental strategies.
- **Mathematics Standard 2.MD:** Tell and write time from analog and digital clocks to the nearest 5 minutes, using a.m. and p.m.

