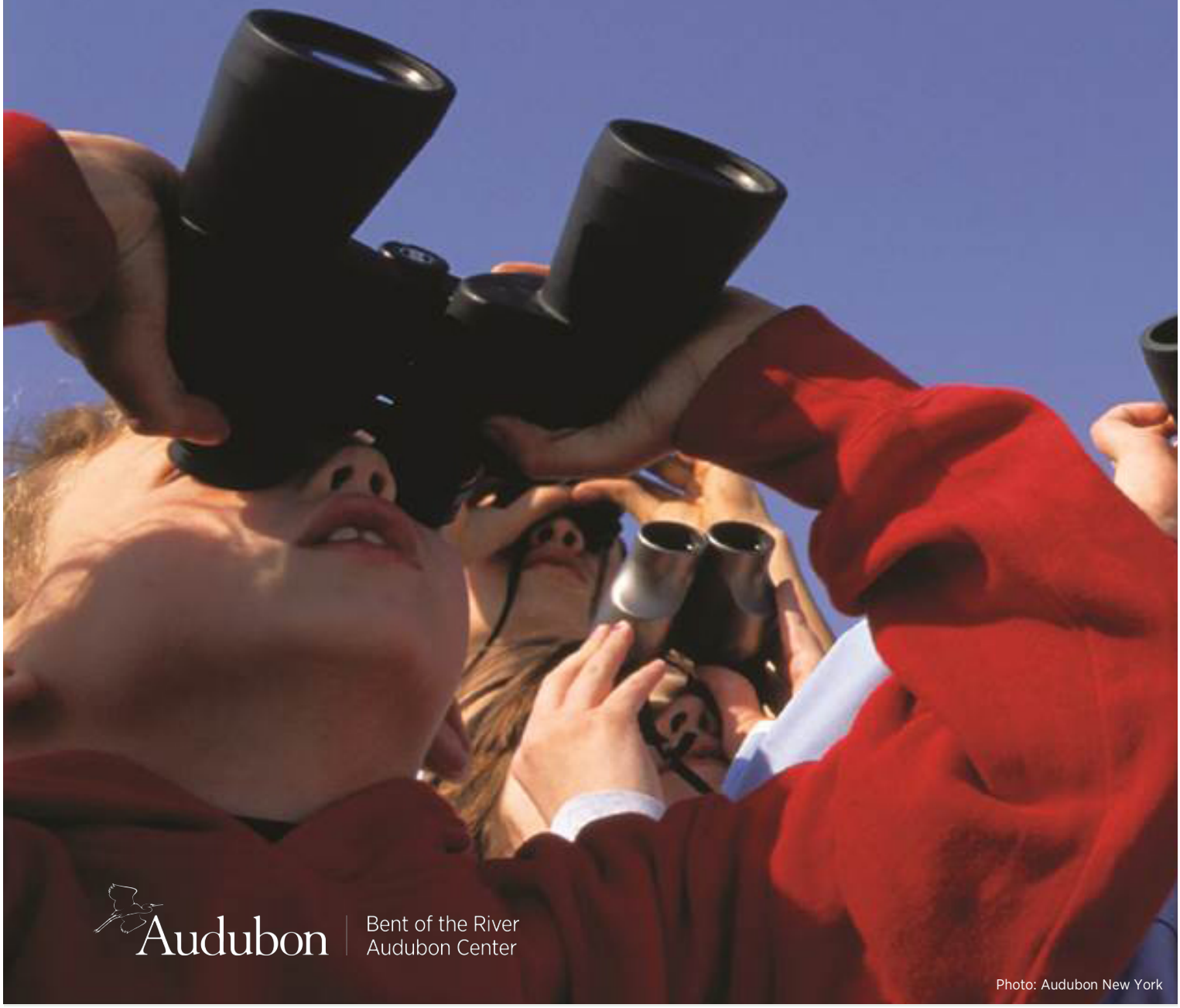
For the Birds! Course Catalog

An in-school program designed to stimulate critical thinking and aligned with NGSS and Common Core Standards to reinforce learning in the classroom.



Audubon | Bent of the River Audubon Center

Photo: Audubon New York

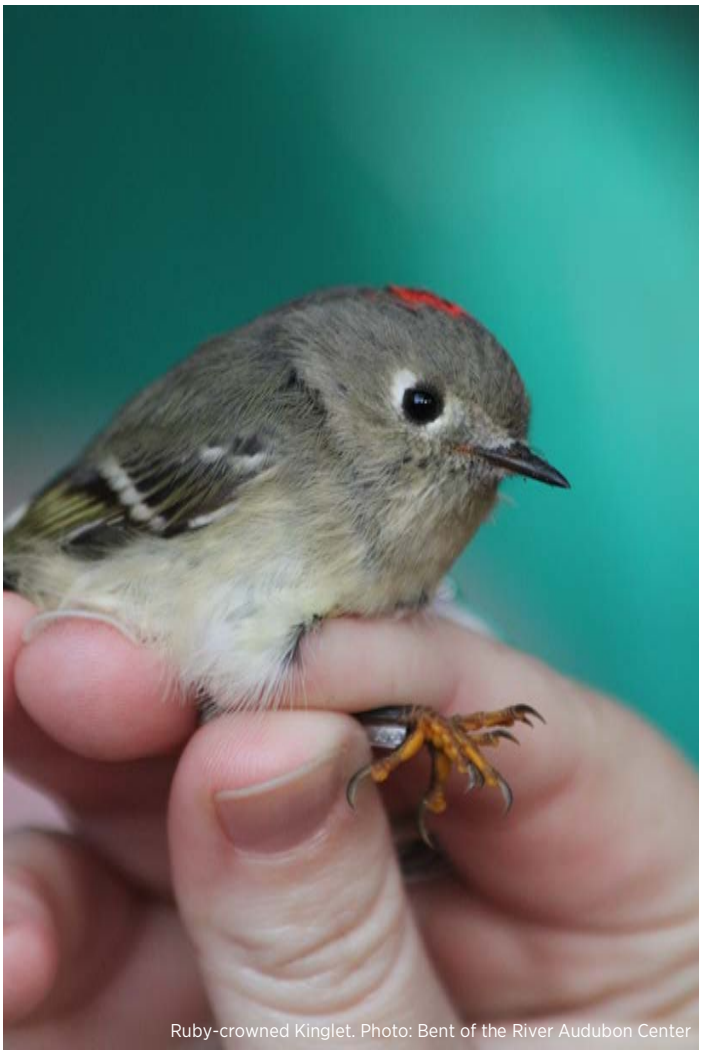
Why Birds?

Where birds thrive, people prosper. Audubon is working with communities to provide important habitat for native birds. In turn, birds offer us a richer, more beautiful, and healthier place to live.

There are few other forms of wildlife that people in all geographic locations can see every day—and there is an amazing diversity of birds around us. Bird accessibility makes it easy to investigate and observe their life cycle, adaptations, habitats, and use of engineering skills to improve where they live.

This, paired with people's natural curiosity and admiration of birds, makes birds an excellent foundation for a student-centered approach to teaching and learning that incorporates the outdoors and is inspired by new science standards.

To put it simply, children love birds and science education with birds helps children to enjoy and retain science standards lessons.



Ruby-crowned Kinglet. Photo: Bent of the River Audubon Center

Why Audubon?

Our mission is to protect birds and the places they need, today and tomorrow. Through our work using science, advocacy, education, and on-the-ground conservation, we are committed to tackling tough conservation issues. By protecting birds, we're also safeguarding Connecticut's, as well as the Western Hemisphere's, great natural heritage for future generations, preserving our shared quality of life, and fostering a healthier environment for us all.

As part of the Audubon Connecticut state office of the National Audubon Society and Atlantic Flyway, Bent of the River is a recognized Important Bird Area and serves as a critical bird and wildlife habitat. Our science fieldwork and collaborative conservation projects with dedicated volunteers as well as local, state, and national partners, provide a wealth of science-based data and results that are paving the way to improved local and regional conservation strategies and modeling.

Bent of the River is also a leader in education for students of all ages, skill levels, and abilities. Our standards-based programs encourage schoolchildren to develop critical thinking skills that benefit both themselves in their personal life journey and the greater community as future conservationists, while our adult offerings provide educational and restorative experiences.

Together with you, we make a difference. Protect the birds and we protect the Earth.

Contents

Lesson Layout

All For the Birds! lessons follow this format:

INTRODUCTION AND REVIEW FROM PREVIOUS WEEK

PRESENTATION OF NEW MATERIAL

- Interactive
- 20-25 Minutes
- PowerPoint and/or other visual materials used

HANDS ON ACTIVITIES

- Designed to stimulate critical thinking and connection-making
- Aligned with NGSS and Common Core Standards to reinforce learning in the classroom

JOURNALING

- Students answer a journal prompt to help them to reflect on the material covered in lessons and to review before the next session

"We, as teachers, strongly feel that the children's exposure to the education of their everyday surroundings, such as the types of birds, has inspired them to deepen their knowledge independently through more research."

—3rd Grade Teacher

LESSON OPTIONS

Birds and Conservation

Typically during the first lesson in a program, we introduce the history of the National Audubon Society and its mission to protect birds and their habitats.

ACTIVITIES

'How to Draw a Bird' - Students learn steps to drawing birds accurately using shapes and identifying markers, practicing writing field notes, and labeling like an ornithologist. This serves as an introduction to their journals.

TOPICS & CONCEPTS COVERED

Life Sciences
Social Studies
Geometry

SKILLS PRACTICED

Recognizing and Drawing Shapes
Recognizing Cause and Effect

Basic Bird Identification

Students learn what makes birds unique from other animals and how to use field marks to identify specific species.

ACTIVITIES

With grade-appropriate activities, students play a game in which they provide field marks as clues to their peers to identify a mystery bird.

TOPICS & CONCEPTS COVERED

Life Sciences
Physical Sciences

SKILLS PRACTICED

Recognizing Patterns
Communicating Information

Intro and Basic Bird Identification Hybrid

For a four-week program we recommend this hybrid course, which combines pertinent information from both the Birds and Conservation and Basic Bird Identification lessons.

"At first, I thought 'oh my child is into nature already and a lot of it might be a repetition'. But through the program, I realized she picked up a lot of different things, and even the things she knew became more solid... In my opinion, I think this curriculum built an interest in a lot of children who hopefully will continue to explore."

—Parent of 3rd Grade Student

Photo: AdobeStock

Neighborhood Bird Walk (Outdoors)

Students venture outside to identify the birds that live in their neighborhood.

ACTIVITY

With a worksheet provided by the For the Birds! staff, students practice the scientific process of recording observable data about the time, weather, location, and tallying of the species they see. Afterwards, students complete a bar graph to organize their data.

TOPICS & CONCEPTS COVERED

Life Science

SKILLS PRACTICED

Carrying Out an Investigation
Recording Science Observations

Beaks as an Adaptation

Students begin to understand the connection between form and function by developing a heightened awareness of how animals use their external parts to survive.

ACTIVITY

Students are given a worksheet detailing different types of food and a set of bird pictures with different shaped beaks. Students match the food to the bird.

TOPICS & CONCEPTS COVERED

Life Sciences
Biodiversity
Structure and Function

SKILLS PRACTICED

Obtaining and Communicating Information
Writing Explanatory Texts

How Do Birds Fly? (Outdoors)

Students learn the physical principles that allow birds to fly (Lift, Drag, and Propulsion) and discover the four varieties of bird wings (Active Soaring, Passive Soaring, High Speed, and Elliptical).

ACTIVITY

Students go outside and observe the birds in their neighborhood, recording which wing designs are present. Students are then presented with four paper airplane designs that resemble the four wing designs. Students select and build a model and then race it against other students who made the same model.

Topics & Concepts Covered

Life Sciences
Engineering
Physical Sciences

SKILLS PRACTICED

Developing and Using Models
Recognizing Cause and Effect
Structure and Function

Flight

Students learn the physical principles that allow birds to fly (Lift, Drag, and Propulsion) and discover the four varieties of bird wings (Active Soaring, Passive Soaring, High Speed, and Elliptical).

ACTIVITY

Students are presented with four paper airplane designs that resemble the four wing designs. Students select and build a model, and then race it against other students who made the same model

TOPICS & CONCEPTS COVERED

Life Sciences
Engineering
Physical Sciences

SKILLS PRACTICED

Developing and Using Models
Recognizing Cause and Effect
Structure and Function

"The students in my class are not often exposed to nature. Their real-life science skills are limited. Being exposed to this program has really opened their eyes."

—Jenise Hamma, Teacher

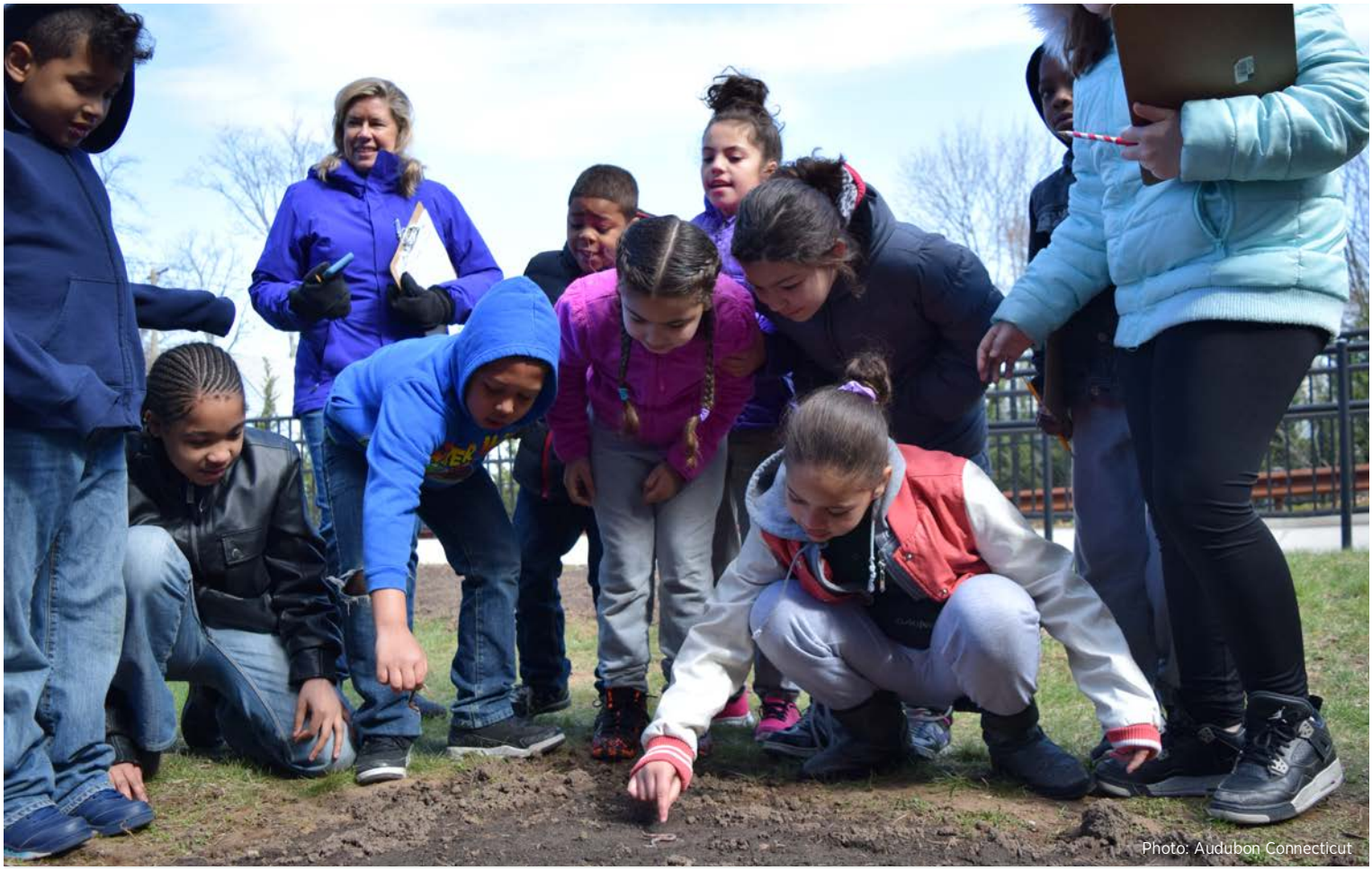


Photo: Audubon Connecticut

Migration

Students learn why, how, and when birds migrate, and the challenges that they face along their journeys.

ACTIVITY

Students are grouped then given a story card detailing the migratory journey of a particular bird. They then plot out the course the bird flew on a poster-size map, and present their findings to the class.

Topics & Concepts Covered

Life Sciences
Earth Sciences
Conservation

SKILLS PRACTICED

Reading Informational Texts
Reading Maps
Communication and Group Collaboration

Raptors

Students learn about special adaptations specific to all raptors, how these adaptations make them different from other birds, and how they help these birds to survive.

ACTIVITY

'Build-a-Raptor'- In small groups, students assemble a model raptor and then use a key to identify it.

TOPICS & CONCEPTS COVERED

Life Sciences
Engineering
Adaptations

SKILLS PRACTICED

Developing and Using Models
Reading Informational Texts
Using Measurements

Bird Builders (Outdoors)

Students learn about the different types of nests various birds build (Cup, Pendulum, Platform, Cavity, Scrape) and the requirements necessary to build them.

ACTIVITY

Students follow the scientific method to discover if a pre-selected species can live in a local park.

TOPICS & CONCEPTS COVERED

Life Sciences

SKILLS PRACTICED

Planning and Carrying Out an Investigation
Asking Questions and Defining Problems
Recording Science Observations
Recognizing Cause and Effect

Birds and the Food Chain

Students learn about the ways in which a food chain works, are introduced to the topics of Keystone Species, and gain a basic understanding of trophic levels.

ACTIVITY

Students make a 'living' food web by pretending to be an assigned animal and finding where they would interact with other 'animals' (other students wearing animal name tags). After mapping their class's food web, students discover how environmental factors (such as disease or natural disaster) change their food web and weaken it.

TOPICS & CONCEPTS COVERED

Life Sciences

SKILLS PRACTICED

Writing an Informative Text
Recognizing Cause and Effect

How Do Birds Get Their Names?

Students learn the meaning behind many bird names (Physical Description, Behavior, Family, etc.).

ACTIVITY

Each student is given a sheet of stencils and a cut-out body of a bird. They select a set of feet, wings, a tail, and a beak, color them, and then build their bird. Once their bird is assembled, they name it, and then in their journals they justify their choice of name based on the bird's characteristics.

TOPICS & CONCEPTS COVERED

Life Sciences
Engineering

SKILLS PRACTICED

Developing and Using Models
Writing an Informative Text
Structure and Function

"Thank you for everything, I promise I will help birds. I really like the field guides [and] will use them to look for birds like we did *on our trip to central park."*

—In a letter from a 2nd Grade Class

Why Do Birds Sing?

Students learn the many reasons birds sing (to find a mate, to defend territory, etc.) and to identify birds through their specific sounds.

ACTIVITY

Students practice identifying bird songs by assigning phonetic values to the songs. They then participate in making a 'Forest in the Morning' by reciting bird songs in unison.

TOPICS & CONCEPTS COVERED

Life Sciences
Wave Properties
Adaptations

SKILLS PRACTICED

Recognizing Patterns
Communication and Group Collaboration

Biomes of Connecticut

Students learn about the five biomes of Connecticut and discover how to identify how different birds have physically adapted to live in these environments.

ACTIVITY

Students are assigned a random bird found in Connecticut. By looking at its physical traits, they determine which biome their bird lives in.

TOPICS & CONCEPTS COVERED

Life Sciences
Environmental Sciences

SKILLS PRACTICED

Recognizing Patterns
Writing an Informative Text
Structure and Function

Ornithologists at Work

Students learn about work being done at the National Audubon Society and other conservation organizations to ensure the survival of birds. They also learn about conservation in Connecticut, about endangered species, and are introduced to concepts of climate change. Recommended for grades 4 and 5.

ACTIVITY

In groups, students have an opportunity to develop a stretch of river any way they see fit. Once completed, students are challenged to adapt their drawings, without removing anything they've already installed, to meet the needs of three species endangered in Connecticut.

TOPICS & CONCEPTS COVERED

Climate Change
Environmental Sciences
Life Sciences

SKILLS PRACTICED

Writing an Informative Text
Structure and Function
Recognizing Cause and Effect

"For me, the goal is to get my students to stop and truly observe the 'world' around them. So, when [the For the Birds! Educators] were able to get the students to use their senses to become aware of their surroundings before pointing out a bird that was most effective. It allowed them to be able to then observe what others pointed out and make more effective observations of their own."

—4th Grade Teacher

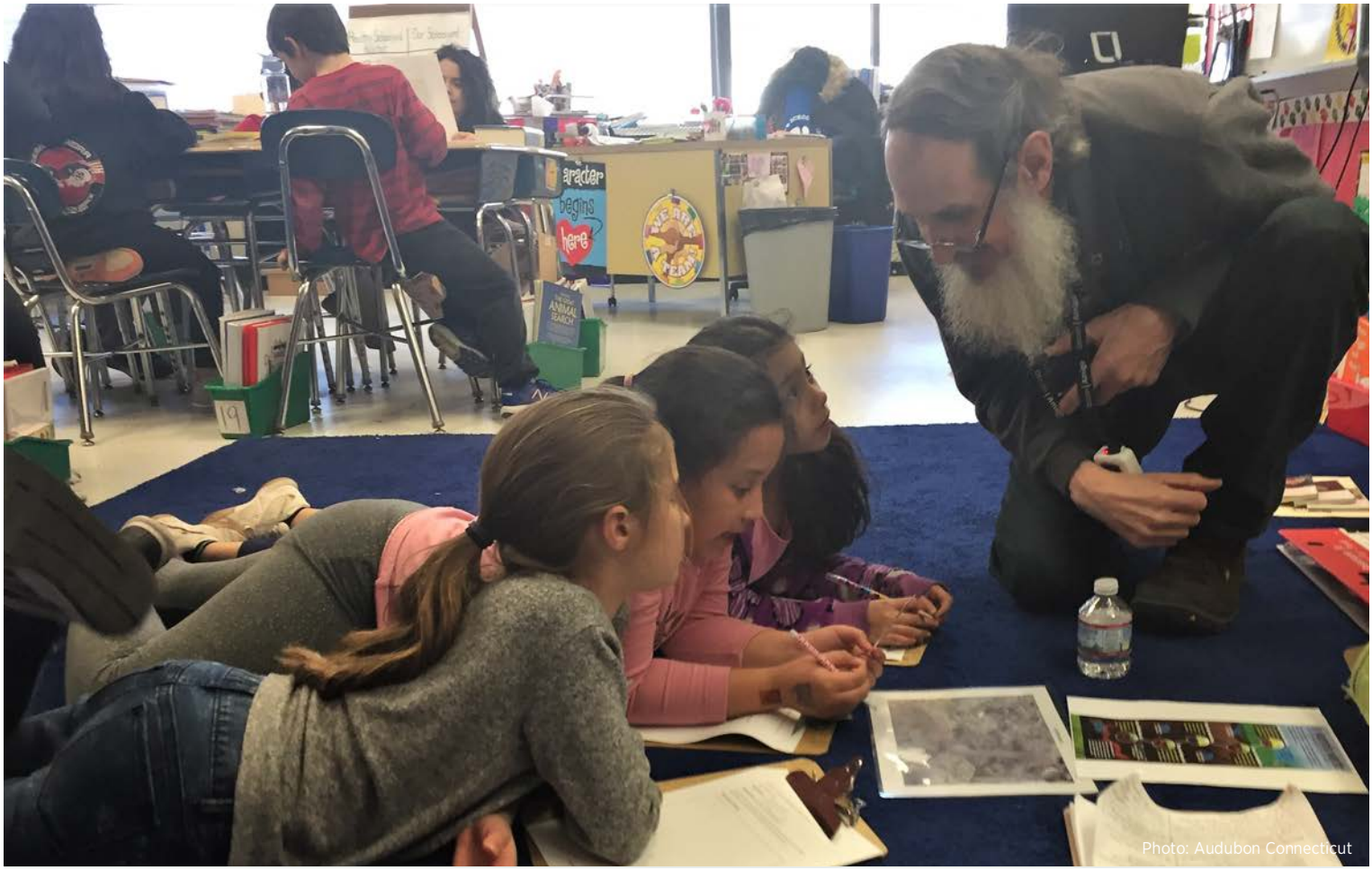


Photo: Audubon Connecticut

Indoor Habitat Enhancement

Students learn about what makes a habitat bird-friendly and what actions they can take to make their neighborhoods and residences safer for birds.

ACTIVITY

Students are provided a map with a birds-eye view of a city with areas that can be improved to make the city more bird-friendly (e.g. a parking lot or an abandoned lot). Student groups are then given markers and act as city planners to improve an area for birds and people.

TOPICS & CONCEPTS COVERED

Engineering
Conservation

SKILLS PRACTICED

Asking Questions and Defining Problems
Developing Models
Communicating Evidence

Outdoor Habitat Enhancement

Students take part in a project to make their school or local park more bird-friendly. They also learn about native, non-native, and invasive plant species.

ACTIVITY

Students participate in planting a garden with native plants, weeding, mulching, or another physical activity.

TOPICS & CONCEPTS COVERED

Life Sciences
Biodiversity
Conservation

SKILLS PRACTICED

Measurement and Data
Asking Questions and Defining Problems

Photo: Audubon Connecticut

Field Trip

Students visit a park near their school to do an extended survey of birds. This provides students with an opportunity to explore various habitats and witness the many different species of birds that pass through Connecticut. The field trip also allows students to apply all of the knowledge they have garnered during the For the Birds! learning experience in a real-world setting. The field trip is most often the portion of the program that teachers cite as having the highest impact for students. We strongly encourage including a field trip as part of the For the Birds! program.

Recommended Lessons for Each Grade

The following are themes that can be used to organize your selection of classes. When choosing, you may pick a package or go a-la-carte.

Kindergarten
How Do Birds Get Their Names?
Neighborhood Bird Walk
Field Trip

Grade 1
Basic Bird Identification
Beaks as an Adaptation
Raptors
Bird Builders
Field Trip

Grade 2
Basic Bird Identification
Neighborhood Bird Walk
Field Trip

Grade 3
Basic Bird Identification
Habitat Enhancement
Field Trip

Grade 4
Migration
Flight or How Do Birds Fly?
Birds and the Food Chain
Ornithologists at Work
Neighborhood Bird Walk
Habitat Enhancement
Field Trip

Grade 5
Birds and Conservation
Biomes of Connecticut
Why Do Birds Sing?
Ornithologists at Work
Neighborhood Bird Walk
Habitat Enhancement
Field Trip