Broadmoor Wildlife Sanctuary

School Programs

GRADES PRE-K to 12

2019 | 2020
massaudubon.org/broadmoor
Greetings, Educators!

Our school programs guide inquiry into nature through engaging experiences with the natural world. They are designed to develop a person’s curiosity about nature into appreciation for their local environment while supporting MA science frameworks.

About Mass Audubon Programs

Through field studies and classroom explorations, Mass Audubon programs provide hands-on, inquiry based experiences with science content and practices. Our educators enhance students’ scientific understanding of species and habitats; ecological concepts such as food webs, cycles, systems, adaptation, and evolution; climate change; and interrelationships between people and nature.

What’s Inside

Programs at Our Wildlife Sanctuary
See a list of our most popular field trip programs at Broadmoor. If you don’t see the standard you are aiming to support listed, call us—we are very versatile and with enough notice can create a program for you.

Programs at Your School & In Your Community
Our goal is to work directly with teachers to develop and implement programs that support your curriculum and student learners. We feature a sample of two programs per grade. Tell us what standard you want and we will let you know how we can bring your students a hands-on engaging lesson.

Professional Development Programs
We provide customized programs to meet teacher development needs for a grade-level, school, or district. We often work with TEC, The Education Cooperative, to offer course for PDPs and graduate credit.

SCHOOL COORDINATOR CONTACT INFORMATION
Melissa Hansen
Education Coordinator
280 Eliot Street, Natick MA 01760
508-315-6720
broadmoorschool@massaudubon.org
www.massaudubon.org/broadmoor-school

Mass Audubon protects 36,500 acres of land throughout Massachusetts, saving birds and other wildlife, and making nature accessible to all. As Massachusetts’ largest nature conservation nonprofit, we welcome more than a half million visitors a year to our wildlife sanctuaries and 20 nature centers. From inspiring hilltop views to breathtaking coastal landscapes, serene woods, and working farms, we believe in protecting our state’s natural treasures for wildlife and for all people—a vision shared in 1896 by our founders, two extraordinary Boston women. Today, Mass Audubon is a nationally recognized environmental education leader, offering thousands of camp, school, and adult programs that get over 225,000 kids and adults outdoors every year. With more than 125,000 members and supporters, we advocate on Beacon Hill and beyond, and conduct conservation research to preserve the natural heritage of our beautiful state for today’s and future generations. We welcome you to explore a nearby sanctuary, find inspiration, and get involved. Learn how at massaudubon.org.
We also offer exciting and engaging programs to support groups that are not looking to support school curriculum frameworks, such as:

**BIRTHDAY PARTIES**
Plan your Nature Adventure Birthday at Broadmoor. Themes can vary by season. Tell us what you love and we'll see what we can do. Popular themes include reptiles, spring animals, birds, and more! All programs are customized to your child.

**SCOUT BADGES**
A naturalist leads your scouts on the trails of Broadmoor Wildlife Sanctuary to explore, search, investigate and identify nature, meeting badge requirements in a fun interactive way! We can help you meet most nature-related badges for Cub Scouts, Boy Scouts and Girl Scouts. Leaders are certified Boys Scout Merit badge counselors.

**AFTER SCHOOL**
Afterschool and Out-of-School programs can get into nature by taking a field trip to Broadmoor Wildlife Sanctuary or having a Naturalist lead activities at your program site.

**COLLEGE GROUPS**
Broadmoor staff works with College and University educators to design custom programs at Broadmoor that complement curriculum. Contact us for ideas and examples of previous college-level programs.

**ADULT GROUPS**
Garden clubs, senior groups, neighborhood groups and other interest groups can book a guided program at Broadmoor or have a naturalist visit you for an engaging educational presentation. We offer a wide variety of options.

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**Learn More & Book Your Group**

**GROUP COORDINATOR CONTACT INFORMATION**
Joy Marzolf
Education Coordinator
280 Eliot Street, Natick MA 01760
508-315-6721
broadmoorprograms@massaudubon.org

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**Programs at Our Wildlife Sanctuary**

Our school field trip programs at Broadmoor Wildlife Sanctuary offer a chance to explore diverse natural life and rich geology, through meadows, marshes, forests, and a vernal pool with the guidance of experienced and enthusiastic Mass Audubon Teacher Naturalists.

<table>
<thead>
<tr>
<th>Program Duration</th>
<th>Rate:</th>
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<tbody>
<tr>
<td>1–1.5 hrs</td>
<td>$8.25 / student</td>
</tr>
<tr>
<td>2 hrs</td>
<td>$9.75 / student</td>
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<tr>
<td>3+ hrs</td>
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**Chaperones**
*We require 1 adult/10 students; nurses and aides are free

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**Grades Pre–K to Kindergarten**

**A SENSE OF NATURE**
Children embark on a multi-sensory exploration of the natural world, comparing how various local animals use senses. Students use their observation skills to investigate the characteristics of living and non-living things found at the sanctuary.
PreK-ESS2-2, PreK-LS2-2

**LIFE CYCLES**
Students explore for organisms in different life cycles stages and can compare those cycles. Investigations can include searching dipped up invertebrates from the water, exploring insects and birds in the meadows, and searching for seeds and plants.
PreK-ESS2-1, K-LS1-2

**MARSH LIFE**
Students sort through organisms dipped up from the marsh to see what lives in the water and how water provides a home. They also explore the water cycle on the sanctuary.
PreK-ESS2-1, PreK-ESS2-3, PreK-LS2-2, K-LS1-1

**HABITATS AND FOOD CHAINS**
Exploring a meadow, a forest and a marsh as habitats, children observe signs of life and discover how plants and animals depend on one another.
PreK-LS2-2, PreK-LS2-3, K-LS1-1
ADAPTATIONS & BIODIVERSITY
Explore diversity amongst and within groups of organisms. Compare shapes of leaves, growth patterns, bird shapes or birds in water and birds in trees. Students will learn that these adaptations help organisms survive better. 1-LS3-1, 2-LS4-1, 3-LS4-2

ANIMALS IN WINTER
By searching for seasonal animals signs, students learn the variety of ways that animals body parts and behavior allow them to survive the cold winter. Children work together to apply learning to ensure their own pretend small mammal survives the cold! 1-ESS1-2, 1-LS1-1, 1-LS1-2

BEAVER HABITAT
Children will see how beavers change the landscape to meet their own needs. They will meet our mounted beaver, find chewed trees, and learn to tell the difference between a lodge and a dam, while investigating around the ponds in our brook. K-ESS2-2, 1-LS1-1, 1-LS1-2, 2-LS2-3

HABITAT EXPLORATIONS
Students sweep net in a meadow, turn logs in the forest and observe wetlands to find plants and animals that meet their habitat needs for food, water, shelter. 2-LS2-3, 2-LS4-1

BIRD ADAPTATIONS, IDENTIFICATION & HABITAT
Through observing wild birds in multiple environments, students will decipher why certain species are adapted to those habitats. For an additional fee, they can learn how an ornithologist studies birds. 3-LS3-2, 3-LS4-2, 3-LS4-3

COMPARING WETLANDS
Students visit a marsh and a vernal pool to search for animals and plants that live there and discover why the characteristics of that environment best meets the needs of the organism. 3-ESS2-2, 3-LS1-1, 3-LS4-3, 3-LS4-4, 3-LS4-5

ADAPTATIONS OF PLANTS
Students investigate local plants for physical and behavioral adaptations that help them survive, such as competing for sunlight, avoiding being eaten, and many ways to make more plants. 3-LS1-1, 3-LS4-2, 3-LS4-3, 3-LS4-4, 3-LS4-5, 4-LS1-1

ENERGY FLOW
Follow the sun’s energy from producers through consumers and finally to decomposers. Students will conduct an experiment to test if plants transpire. 5-LS1-1, 5-LS2-1

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Please provide the following information to the school coordinator:
School — Name, Town
Contact — Name, Email, Phone Number
Participants — Number of Participants, Number of Classes, Grade level
Adults — We require 1 adult/10 students; nurses and aides are free; additional adults are $6 each
Curriculum —
- Science frameworks you’d like supported
- Field Trip or Outreach Program that most interests you
- Vocabulary words and definitions
- What related content will the students have learned before/after this experience

We strive to provide a program that promotes effective participant learning. Our staff are trained to facilitate programs to meet the needs of multiple learners, knowing each has individual styles, needs, and abilities. Please let us know how best to ensure a successful experience for all students by disclosing needs and accommodations; all information will be handled confidentially.
Professional Development Programs

We partner with other sanctuaries and local colleges and universities to offer quality professional development sessions that meet the Department of Education requirements. Please check the online catalog for current sessions, PDPs and graduate credit availability.

We are also able to work with individual schools or districts to provide support in curriculum development, life and earth science content and instruction, and science teaching and learning practice. Contact the school coordinator to discuss your needs.

Home-Schooled Students

Stressed about teaching science?

Book your homeschool group for a field trip to Broadmoor! Our Naturalists will facilitate exploration and hands-on activities for students to engage in life and earth science concepts.

We can provide one of our popular elementary school field trips, outlined on page 4, or we can create one that uniquely supports your group’s science interests. Contact the school coordinator to learn more.

I love having a Naturalist working at the school, because the students have a role model for a future career in science, as well as having access to an expert to ask questions about the natural world. Her lessons are great models for teachers who may not be comfortable yet or may be new to teaching science... Her enthusiasm and ideas for the bird evolution lesson were awesome! She managed to make a challenging topic third-grade appropriate.

- 3rd grade teacher, Pine Hill

Programs at Your School & in Your Community

Teacher Naturalist facilitates interactive, hands-on lessons in your classroom or in nearby natural areas, using natural materials, games, movement and inquiry to engage students in learning.

Early Education Outreach

Rate $105/hour
Program length varies: 20—60 minutes
Minimum charge of 1 hour; Travel fees apply

We are happy to design programs to support your preschool themes or meet students’ current interests as they emerge.

ANIMAL BABIES
Students compare and observe the life cycle of a few animals.
PreK-LS3-1

WATER EVERYWHERE
Experiment with water to find where it hides in nature and how it can be liquid, solid, or vapor.
PreK-ESS2-3, PreK-PS1-1

TRACKING STORIES
Children explore how animals move around through mimicking them and investigating samples of animal tracks and signs.
PreK-LS1-1, PreK-LS1-3

MY 5 SENSES
Children use their sense to explore and compare to animal senses. Can be done as an overview of all 5, or 1 sense per session.
PreK-LS1-2, PreK-LS1-3

Other popular topics:
SEASONAL SIGNS
PEOPLE & NATURE
IS IT ALIVE?
UNDER A ROCK
OWLS
SQUIRREL IT AWAY
HIBERNATION & MIGRATION
Elementary School Outreach

**IS IT ALIVE?**
45 minutes | Rate A
Students investigate what makes something alive, comparing living organisms with things that exhibit some, but not all, characteristics of life. PreK-ESS2-2, K-LS1-1, K-LS1-2

**CHANGING THE WORLD AROUND THEM**
45-60 minutes | Rate A
Through a close look at a taxidermy beaver and decomposers, students will explore some of the ways animals change the environment. K-ESS2-2

**ANIMAL ADAPTATIONS**
45-60 minutes | Rate A
Students will compare a variety of animal parts, such as skulls, talons, and skins, along with life cycles models to discover the many ways animals survive. 1-LS1-1, 1-LS1-2

**GROW A FOREST IN CLASS!**
45-60 minutes | Rate B
Create a forest in the classroom as students become a plant—acting out the jobs each part performs to keep the plant healthy and strong! They’ll also observe samples of plant parts. 1-LS1-1

**HABITAT MATCH**
45-60 minutes | Rate B
Discover what animals and plants need to live and why their habitat is the best match through a combination of presentation and hands-on explorations of living samples from two different environments. 2-LS2-3, 2-LS4-1

**NATURAL SELECTION OF BIRDS**
60 minutes | Rate D
Using bird puppets, students experience how natural selection works as they try to survive with their adaptations in the island environments available to them. 3-LS4-2, 3-LS4-3, 3-LS4-4, 3-LS4-5

**EXPLORE LIFE CYCLES**
45-60 minutes | Group B
Observe living samples and replicas to arrange, sort and compare life cycles of local plants and animals. 3-LS1-1

**EROSION & WEATHERING**
60 minutes | Rate B
Students investigate the forces that shape the earth on a large scale and small scale. They will apply learning by identifying evidence of erosion and weathering in nature or using samples in class. 4-ESS1-1, 4-ESS2-1

**PLANT ADAPTATIONS**
60 minutes | Rate B
Students examine plant structures, behaviors for survival, and reproductive strategies. Depending on what is seasonally available, it includes local flowers and seeds. 4-LS1-1

**MCAS SCIENCE REVIEW**
60 minutes | Rate C
Through hands-on investigations of nature, students rotate through stations to review science from K-5! Supports many Earth Science and Life Science frameworks.

**Programs for Middle & High School**

We can support life and earth science frameworks in grades 6 and up through field trip and outreach programs. We may also be able to develop programs to meet your needs. Contact us to learn more!

**Naturalist-in-Residence Programs**

Have a Teacher Naturalist work with multiple grades in your school, building science literacy through comprehensive programming year to year. The Naturalist will work with grade-level teachers annually to best support each group of student learners and maintain relevance with each year’s science curriculum. This can include in-class lessons and outside investigations.

**Programs range from 30 minutes to 90 minutes**
Programs are tailored to your school and we offer discounts for programs reaching multiple grades with multiple contacts. Contact us for a free planning meeting and to find out more details.