

Islands School Programs

GRADES PRE-K-12

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Mass Audubon School Programs

Through field studies and classroom explorations, Mass Audubon provides 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.

About Mass Audubon ISLANDS

Mass Audubon's Islands region is home to an array of unique coastal and island habitats. We host fun and educational nature-based programs for students of all ages, primarily based out of our Felix Neck Wildlife Sanctuary in Edgartown (on Martha's Vineyard).

We offer students the opportunity to experience nature and wildlife through hands-on learning outdoors and in the classroom. By building awareness and knowledge of their natural surroundings, we hope that children will appreciate and respect the Islands, develop a "sense of place," and carry this ethic through life.

Felix Neck, Edgartown Lost Farm, Nantucket Trails Only Sesachacha, Nantucket Trails Only

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We Meet You Where You Are

Programs at your school, at our wildlife sanctuaries, or wherever nature is most accessible for you

Whether you want to bring nature into the classroom or take lessons outside, our programs offer insight into New England habitats and native species and enrich natural history and science lessons while strengthening students' connections to the environment.

Accessible Programs

Mass Audubon is committed to providing engaging, exciting, meaningful, and enduring educational programs, field trips, and learning activities for students with a broad range of physical, sensory, and learning needs.

Our educators strive to design and deliver adaptive programs that align to educational best practices and meet the needs of all students. The award-winning, ADA-compliant, interpretive All Persons Trails at many of our wildlife sanctuaries are open for all visiting school groups, providing access to wetland boardwalks, wildlife viewing areas, and gardens for birds, butterflies, and more.

We will gladly work with you to meet the needs of your classroom. For more information, please contact your local sanctuary.



Early Childhood & Elementary

Our Early Childhood and Elementary programs combine standards-aligned science content with the joy and excitement of learning about nature. We can bring the natural world to you through programs in your classroom, connect students to the ecology of their own schoolyard, or facilitate scientific exploration on a field trip at one of our wildlife sanctuaries.

Mass Audubon's Signature Program



Science of Massachusetts is a multi-week curriculum for grades K-8 that will engage your students in exciting, hands-on, naturebased science right in their own schoolyard.

See page 3 for more details.

Additional Programs

Wildlife Through the Seasons

Pre-K-2 | Fall, winter, and spring

Classroom: 45 minutes | Field Trip: 2 hours

Classroom: Learn how animals have adapted to survive throughout the seasons. Through discussion, games, and a close-up look at animal specimens, students become familiar with the needs of Island animals and understand terms associated with each season.

Each classroom visit can be paired with an optional field trip component

Field Trip: Go exploring and discover terrestrial (e.g. birds, insects, and mammals) or aquatic animals (e.g. frogs, fish, and dragonflies). Have fun on a scavenger hunt searching for living things and the non-living parts of an ecosystem. We will notice changes and differences in plant and animal life throughout the changing seasons.

Reptiles of Martha's Vineyard

K-2 | Fall or spring 2 sessions | 45 minutes to 1 hour each

Classroom: Students learn about native reptiles and their island habitats. We bring live, native turtles and a non-native snake into the classroom to provide an opportunity for students to learn about the unique characteristics of reptiles and how they meet their basic needs for survival. This program also emphasizes actions that children can take to protect these animals. We hope to dispel any fear of snakes and help students understand how to observe snakes in the wild.

Optional Reptile Walk in early fall or late spring

Field Trip: Explore the Sanctuary looking for reptiles as we cross over Turtle Pond and uncover our snake boards. We will discuss the importance of protecting habitat and how to interact with the wildlife we find.

Additional Programs

Seasonal Seashores

Grades K-2 | Fall & spring 1.5 - 2 hours | Single field trip or series of 2 programs

Students will be introduced to the seashore habitat and the animals that live there as they explore the waters of Sengekontacket Pond. There will be a discussion of the marine life they find, why these animals need this habitat to survive, and how climate change is affecting Island waters. Classes may take specimens back to the classroom to set up aquariums for long-term study.

Freshwater Ponding

Grade 3 | Fall or spring Series: 1 classroom visit (45 minutes) followed by 2 field trips (2 hours)

Classroom: Introduce students to freshwater pond ecology through exploration: Who lives where throughout the habitat? What and who are needed to make a freshwater pond? We will end with an activity that demonstrates the food web and shows how important balance is in all of our ecosystems.

Field Trips: Take a deeper dive into local ponds at Felix Neck and Cranberry Acres as we examine sediment samples in search of aquatic invertebrates and amphibians. Students learn to identify, count, and record their findings, and discuss the intricate life cycles, food webs, and survival adaptations of pond organisms. We will end with a discussion of how our Island's ponds are responding to climate change and what we can do to help.

Bats Make Waves

Grade 4 | Fall or spring Series: One classroom visit (45 minutes) followed by one field trip (1–2 hours) at dusk

Classroom: In this classroom presentation, students learn about bat species that live on Martha's Vineyard and how their habitats are changing with our climate. We'll also explore sound waves and learn how bats use

them in echolocation.

Bird Investigations Grades 2-5 | Year-round

1 hour | multi-program series options

Through a combination of hands-on activities and a presentation, students will learn about the life history of either owls or osprey.

Owls: Through a variety of participatory learning exercises, students will be introduced to the owls of Massachusetts. Discover the unique characteristics of owls, learn how to identify different species, and explore the behavior and adaptations of owls (includes owl pellet dissection activity).

Osprey: Students will gain an introduction to ospreys and the physical and behavioral adaptations that make them unique among raptors. Learn about food chain contamination, habitat needs, and migration through classroom activities, biofacts, and the opportunity to view Osprey nesting sites at Felix Neck.

Coastal Ecosystems

Grades 3-5 | Fall or spring

1 hour | multi-program series options

Choice of topics: Salt Marshes, Horseshoe Crabs, Shorebirds, or Migratory Mapping

Horseshoe crabs and shorebirds and mollusks, oh my! Investigate our coastal ecosystems to discover how a wide variety of creatures are able to survive in these ever-changing habitats. The program focuses on adaptations, life cycles, migration, and food webs. Some topics also provide an opportunity to learn about human impacts on wildlife and ecosystems and introduce students to some of the ways those impacts can be mitigated.

Locations: At your school, at a sanctuary, or a hybrid









Science of Massachusetts

Science of Massachusetts (SOM) is a multi-week curriculum for grades K–8 that will engage your students in exciting, hands-on, nature-based science right in their own schoolyard. This is a wonderful way to help your students get outside for a healthy dose of nature, even when field trips are not possible.

Curriculum Overview

Tightly aligned to the Massachusetts Science Curriculum Frameworks, SOM takes K-8 students on a deep dive into science concepts through inquiry-based, outdoor learning. Students will complete field journaling assignments and investigations that help them develop important science practices and be invited to find their place in nature and impact their world, whether they live in an urban, suburban, or rural community.

This program is offered in a unique format. Each unit is designed as a series, with one lesson completed over the course of a week. Each lesson includes:



An engaging, short **video** that introduces the lesson topic and can be viewed in the classroom or as homework.



An outdoor **field journaling** assignment led by the classroom teacher, inviting students to connect with nature through place-based, hands-on science learning,



A Mass Audubon-led **sensemaking session**, which allows time for students to deepen their understanding of science concepts and engage in science practices together.





Support is available for districts with financial challenges, and our curriculum is designed to be accessible to all learners. Training is available to support teachers implementing the curriculum for the first time.

Grades K-2

Soil Science: Where the Minibeasts Are 5-week series

In this unit, we will explore different types of minibeasts or invertebrates, like worms, pill bugs, and millipedes. Students will engage in outdoor investigations to find out where the best place is for a minibeast to live. Then they will document their observations in field journals and use evidence to explain how different schoolyard habitats may or may not support the needs of invertebrates. Finally, students will expand their investigation to understand how humans can learn from minibeasts to protect their local environment.

Rooted in Science: Trees!

7-week series

Trees provide much more than shade or pretty additions to city streets and neighborhood parks. This unit explores habitats, adaptations, and life cycles, with trees as a unifying theme. With accessibility to all learners as a priority, lessons highlight the diversity of trees across various Massachusetts habitats, including suburban, urban, and rural areas.

Grades 3-5

Energy on Earth 7-week series

Learn how energy from the sun powers life on Earth, both living processes and the technologies we use to power our communities. Each lesson explores one aspect of the energy cycle within biotic and abiotic systems, including photosynthesis, consumers, decomposers, and renewable and non-renewable energies.

Stronger Storms: Taking Action for Community Resilience

6-week series

In this unit, students will get outside and investigate the ways stronger storms impact their communities, specifically through rain and snow. They will identify places of vulnerability and places of resilience in their schoolyard or neighborhood. As a culminating project, they will design solutions to help reduce the impacts of stronger storms in their area and communicate it with members of their community.

Grades 6-8: Climate of Massachusetts

Rooted in Solutions: Trees & Climate Change 7-week series

Are trees the solution to climate change? Through place-based, inquiry-driven investigation, students will study the role of trees in the carbon cycle. Then, they'll expand their investigation to find out whether forest sequestration (or any single nature-based climate solution) is enough to fight climate change. Finally, students will explore their own role as a changemaker by planning a collective, climate-positive action.















Middle & High School

Our Middle and High School programs make science content relevant and exciting through handson, place-based lessons that will support your life and earth science curricula. We offer standardsaligned programs that are based at your school, at our wildlife sanctuary, or a combination of both.



The Wonders of Watersheds

Grades 7-8 | Spring Series: 1 classroom (1 hour) visit followed by 2 field trips (1–3 hours)

Classroom: Students identify their watershed address using Martha's Vineyard watershed maps, and then as a group build their community with our watershed model to discover the interaction of land use and water quality and the actions they can take to help keep our waters clean.

Civic engagement field trip: Put knowledge into action as we remind our community to refrain from contaminating our waters. We will put signs on storm drains and collect trash along the way.

Kayaking field trip: Students explore the salt marsh and tidal creeks for marine life and collect water samples. Back on shore, we will perform various water quality tests and reveal how healthy (or not) our pond is.

Sea Level Rise and the Salt Marsh

Grades 9–12 | Fall or spring Series: 1 classroom visit (1 hour) followed by 1 field trip (2 hours, kayak component optional)

Classroom: Students learn why our seas are rising and how the oceans are affected by our changing climate. Discussion will focus on local impacts and both short and long-term solutions to address these changes.

Field Trip: Students explore the salt marsh and tidal creeks for marine life. Discussion focuses on the value of wetlands to people and wildlife. A visit to our Living Shoreline highlights an ongoing salt marsh restoration project to combat climate change. This program can also be done by kayak.



Additional Programs

Understanding Endangered Species

Grades 6-10 | fall, winter, or spring Series: One school visit (45 minutes-1 hour) and/or a field trip

What are some of the challenges that conservation scientists have when trying to protect local endangered or threatened species like the Piping Plover or the extinct Heath Hen? Students will review literature and data sets regarding local conservation efforts, which will drive group discussions and potential solutions.

In the field, while incorporating some of the same activities and discussions from the classroom session, students will learn about particular species that the wildlife sanctuary staff is working to protect.

Climate Change Hike

Grades 6–10 | Fall, winter, or spring 1.5 Hours | field trip

Students will explore the areas of Felix Neck Wildlife Sanctuary affected by climate change. Topics include bird migration, temperature, and sea level rise; the spread of pests and invasive plants; and more. This walk will take a hard look at the effects of climate change. Students will also experience the positive steps that can be taken to reduce carbon emissions and climate impacts. If visiting a Mass Audubon wildlife sanctuary, this field trip will showcase how we are monitoring and mitigating climate stressors on people and wildlife.

Buds, Leaves, & Global Warming

Grades 5+ | Minimum Field Time: 4 field visits Location: Felix Neck Wildlife Sanctuary or schoolyard

Students can participate in the Harvard Forest schoolyard research project by measuring and tracking "bud burst" in the spring and/or leaf color change and drop in the fall. Discuss related research questions such as how long is the growing season, and how is the length of the growing season related to climate?

The Climate of Massachusetts

A multi-week climate change curriculum based at your school

The Climate of Massachusetts is a multi-week curriculum that gets middle school students outside and exploring the science of climate change. Our inquiry-based units, which are tightly aligned to Massachusetts Science Frameworks, investigate the impacts of climate change and how we can build more equitable and resilient communities.

Throughout this unit, students will complete field journal assignments, collect and interpret data, and meet young people making change in their communities.

Units available for grades 6–8.















Additional Programs

Afterschool Programs

Enrich your afterschool program with a nature-based option that will get students outdoors to explore, have fun, and practice age-appropriate science skills in their own schoolyard. Whether you have access to asphalt and a few trees, a school garden, or a full forest, we will help your students connect with the diversity and wonder of the natural world.

Environmental Explorers

Available for grades K-8

Designed for groups of 12–15 students, Environmental Explorers is a weekly afterschool offering that connects students in grades K–8 to nature wherever they are.

Each week, students dig into a new topic while building science practices and naturalist skills. When possible, lessons will bring students outside and use whatever environment is readily available.



Naturalist-in-Residence

Available for all grade levels (Pre-K-12)

Get students outdoors and exploring the natural world right outside of their school doors. Every visit with your Mass Audubon Naturalist-in-Residence will engage students in a hands-on, inquiry-based science lesson.

Our staff will work alongside school teachers to integrate these lessons into the science, literacy, ELL, arts, or other curriculum for any grade level. Frequency of visits can vary from weekly to monthly.

iPlan: Mapping the Future

iPlan is a free online game that allows learners to construct, investigate, and solve simulated urban and regional planning problems. Using real geospatial, ecological, and economic data, iPlan transforms any location in the contiguous United States into an interactive land-use planning simulation.

Middle and high school students can design and test rezoning plans that address socioeconomic and environmental challenges and their plans are evaluated by virtual stakeholders who advocate for different community priorities.



Learn more and start playing at <u>i-plan.us</u>.

Additional Programs



Professional Development

Mass Audubon's Professional Development programs are designed to increase content knowledge, provide teachers with hands-on, STEM-focused learning experiences, and offer resources for teaching engaging, inquiry-based science lessons in the schoolyard or classroom. In-person and virtual workshops are available, along with consulting and site visits.

For more information, visit massaudubon.org/pd or contact education@massaudubon.org.

Early Education Workshops

Time spent in nature with young children is time wellspent: Research from the Children & Nature Network demonstrates that having regular opportunities to learn outdoors in early childhood has lasting benefits for children's physical, emotional, and academic growth.

Mass Audubon's professional development workshops are designed to help early educators build skills and confidence for teaching all curriculum areas outdoors! Both in-person and virtual options are available.

Workshop topics include:

- Nature and Social-Emotional Learning
- Art and Music Outdoors
- Nature-Inspired Language and Literacy
- Early Science Literacy
- Math in Nature
- Fine and Gross Motor Development
- Bringing Nature Inside
- Safety Management and Weather
- Farm to School (Cooking and Gardening)

To book an Early Education professional development workshop or series, contact **earlyed@massaudubon.org**.

SEEDS

Seasonal Early Education Discovery & Science

Mass Audubon's year-long Seasonal Early Education Discovery and Science (SEEDS) program is designed to build school-wide capacity for introducing students to the natural world.

Using a modeling-coaching-mentoring model, we partner with schools to create rich, nature-based learning opportunities that fit smoothly within the existing curriculum of the school. At the end of a year, teachers will have the skills to make nature a regular part of their daily curriculum and will be excited for leading effective lessons outdoors.

Visit massaudubon.org/earlyed to learn more.





Kindergarten-Grade 12 Workshops

Mass Audubon's professional development programs for K-12 educators are designed to increase content knowledge, provide teachers with hands-on, STEM-focused learning experiences, and offer resources for teaching engaging, inquiry-based science lessons in the schoolyard or classroom. Both in-person and virtual options are available.

Workshop topics include:

- Bringing Learning Outdoors
- Field Journaling
- Inquiry-based Schoolyard Science
- Teaching Climate Change
- Climate Justice in your Community
- Watershed Science

To book a K-12 professional development workshop or series,

Additional Support Services

Summer Institute Nature School for Teachers

In this week-long intensive, K-8 science teachers will immerse themselves in local habitats and meaningfully connect with the science practices embedded in the Massachusetts Science Frameworks.

Practice inquiry-based learning methods through hands-on exploration of local habitats, field research, and an investigation design process you can bring back to your classroom.

Consulting

Mass Audubon will support you in designing nature-based activities that fit into your existing curriculum. Consulting can be done in-person or virtually. Contact us to learn more about how we can support you with individualized curriculum support or custom professional development.

Site Visits

Our teacher naturalists will help you make the most of your outdoor schoolyard for learning, whether it's in an urban, suburban or rural setting. After the visit we will produce a report with suggestions and ideas for topics and activities that will work well in your space. Each visit includes a complete write-up with notes.

Contact education@massaudubon.org to learn more.







Mass Audubon Mass Audubon is the largest naturebased conservation organization in New England. Founded in 1896 by two women who fought for the protection of birds, Mass Audubon carries on their legacy by focusing on the greatest challenges facing the environment today: the loss of biodiversity, inequitable access to nature, and climate change. With the help of our 140,000 members and supporters, we protect wildlife, conserve andrestore resilient land, advocate for impactful environmental policies, offer nationally recognized education programs for adults and children, and provide endless opportunities to experience the outdoors at our wildlife sanctuaries. Explore, find inspiration, and take action at massaudubon.org.