



South East

# School Programs

GRADES K-12

2023 | 2024

[massaudubon.org/schools](https://massaudubon.org/schools)



# 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 South East

The Mass Audubon South East wildlife sanctuaries support science learning and the Massachusetts Curriculum Frameworks through engaging, hands-on, student-centered programs. Our sanctuaries are home to a variety of habitats, including salt marsh, rocky beach, tidal flats, upland forests, meadows, and freshwater wetlands, which include both vernal pools and ponds. School groups can explore local natural history and delve into the interdependence of people, land, and wildlife with trained teacher naturalists at one of our four breathtaking locations.

**Allens Pond** | South Dartmouth  
& Westport

**North River** | Marshfield

**Oak Knoll & Attleboro Springs** | Attleboro

**Tidmarsh** | Plymouth

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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.



Allens Pond



Oak Knoll



Tidmarsh

## Our Wildlife Sanctuaries

### **Allens Pond Wildlife Sanctuary** | South Dartmouth & Westport

Spanning hundreds of acres of protected beach, fields, woodlands, ponds, and marshes, Allens Pond offers three extensive, linked trail systems with spectacular ocean and pond views from many vantage points. The historic Stone Barn is a great base of operations for naturalist-led educational experiences.

### **North River Wildlife Sanctuary** | Marshfield

North River is named for the state-designated Scenic River that winds along its northern boundary. The sanctuary's fields, oak forest, and salt marsh attract a wide variety of birds and other wildlife and present abundant opportunities to explore a variety of habitats. An accessible trail system winds through each of these habitats, making each outing an adventure.

### **Oak Knoll & Attleboro Springs Wildlife Sanctuaries** | Attleboro

Looking out over Lake Talaquega, it's hard to imagine that this serene setting was once a buzzing entertainment destination, complete with a casino and hotel. Now Oak Knoll, just minutes from downtown Attleboro, offers a natural respite with wooded trails and boardwalks winding through a red maple swamp, upland forest, a freshwater marsh, and around the lake's perimeter. Less than a mile up the road is Oak Knoll's sister sanctuary, Attleboro Springs; once a center for healing, nature has reclaimed the land and it now provides habitat for forest birds as well as trails for all to enjoy.

### **Tidmarsh Wildlife Sanctuary** | Plymouth

Once a working cranberry farm, Tidmarsh underwent the largest freshwater ecological restoration ever completed in the Northeast. Now, the 481-acre property is home to a vast expanse of cold-water streams, ponds, and woodlands, with 3.5 miles of trails traversing wetlands, upland forests, and meadows. The unique history and restoration story of Tidmarsh makes it the ideal backdrop for discovering the impacts of humans on the environment and how we can affect positive change in the natural world.



## 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



**Science of Massachusetts**  
A Mass Audubon Education Program



Science of Massachusetts 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.

See page 4 for more details.

### Available Programs



Please note: At this time, the Science of Massachusetts program series is the only option available for

Kindergarten classes in our region.

Requests for program series and project-based programming will take priority over single-program requests.

#### FOR ALL EARLY CHILDHOOD AND ELEMENTARY PROGRAMS:

*Programs are available as a single school visit or field trip, or can be combined into a series that includes one school visit (45 minutes-1 hour) and a field trip (2 hours).*

*Locations: Your school, a community greenspace, and/or any South East wildlife sanctuary*

#### Life Cycles & the Seasons

Grades 1-4 | fall, winter, or spring

In the classroom, students will explore the life cycle of several groups of animals and discover how each one is special. For insects, we will explore the difference between complete and incomplete metamorphosis and which species demonstrate each.

In the field, students will take simple weather measurements and predict a forecast. Explore how the land, communities of people,

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# Early Childhood & Elementary

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and local wildlife respond to short-term weather events and longer-term seasonal patterns. Hike the sanctuary during the fall, winter, or spring with your students, depending on your curriculum.

## Adaptations

**Grades 1-5 | fall, winter, or spring**

In the classroom, students will explore different types of animal and plant adaptations and how they have learned to survive in different environments and habitats. We will look at natural artifacts to inspire enthusiastic discussions.

In the field, use nature journaling to explore different physical and behavioral adaptations and how they each help wildlife survive. Participate in fun activities exploring live wildlife at our sanctuaries and discuss which have the most interesting and mind-blowing adaptations.

## Intro to Animals & Classification

**Grades 1-5 | fall, winter, or spring**

In the classroom, students will learn how and why scientists classify living things. They will participate in classification activities and, by the end of the program, will be able to identify the five animal vertebrate groups.

In the field, we'll use nature journaling to better understand how and why scientists classify local organisms. Compare the traits of animals and plants that you find and create a class field guide to reinforce learning.

## Habitats

**Grades 1-5 | fall, winter, or spring**

In the classroom, students will learn why all animals need food, water, shelter, and space. Various habitats will be discussed and students will be challenged to think about biotic and abiotic components in a game called Habitat Charades.

In the field, we'll use nets, field guides, and scientific equipment to explore and compare different habitats. What types of plants can we find in each? How do they determine what types of animals we may find? Learn what makes each one special to wildlife and to people.

## Food Chains & Webs

**Grades 1-5 | fall, winter, or spring**

In the classroom, students will create a local food chain and food web while learning about the different stages within the cycle (producers, consumers, and decomposers). We will explore different kinds of local animal species to study and discuss what role their energy has in this cycle.

In the field, we'll use nets, field guides, and scientific equipment to explore local habitats. Students will create a local food chain and food web while learning about the

different stages within the cycle. Work in large groups to build a local food web and search for wildlife on the trails.

## Rocks & Fossils

**Grades 1-5 | fall, winter, or spring**

In the classroom, students will learn about the rock life cycle and study real rocks and minerals hands-on. Group activities will help students discover how they rocks form; then, we'll examine fossils and explore the study of past living organisms.

In the field, students will identify various rocks and their significance in the landscape through hikes, activities, and observations. Search for puddingstone to discover a special type of conglomerate that is our official state rock. We will also explore and discuss the land's past through fossils.

## Wetlands & The Water Cycle

**Grades 1-5 | fall, winter, or spring**

In the classroom, students will participate in group activities and learn what makes a wetland a wetland. They will describe and compare the different types of wetlands found in Massachusetts and how they benefit people and our communities. This lesson will include a lesson on the water cycle and how water flows and gathers over land.

In the field, discover what a wetland habitat is and its importance in the water cycle. Use maps, dip nets, and ponding tools to learn about the water's movement, its inhabitants, and what makes this type of land special. Depending on which sanctuary you visit, you may explore vernal pools, ponds, streams, marsh and swamp, or tidal zones. Learn how each one is special in its own way.



## A Year-long Program to Discover and Protect Your Local Watershed

In the Rivers to Sea program, students (grades 5-12) and teachers partner with Mass Audubon educators to explore, research, and take action in their local watershed, learning to recognize the importance and interconnectedness of watershed systems, from rivers to sea.

*Units available for grades 5-12. Learn more on page 6.*



## 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.



## Science of Massachusetts

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.



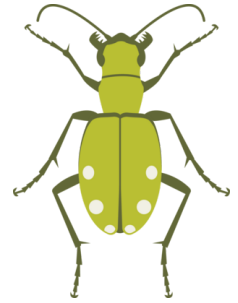
Support is available for districts with financial challenges, and our curriculum is designed to be accessible to all learners. Training is available to support teachers implementing the curriculum for the first time.

### 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 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.

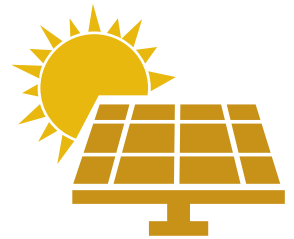


### Grades 3–5

#### 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.



► Learn more about Science of Massachusetts at [massaudubon.org/som](https://massaudubon.org/som).



## Middle & High School

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

### Mass Audubon's Signature Program: Rivers to Sea



Rivers to Sea is a year-long program in which students and teachers (grades 5-12) partner with Mass Audubon educators to explore, research, and take action in their local watershed.

Through this program, students will learn to recognize the importance and interconnectedness of watershed systems, from rivers to sea. They will also delve into the impact of human activities on watersheds, both positive and negative. At the heart of this STEM-focused program is student involvement in community action projects that will contribute to the improvement of watershed and public health, building their sense of self-efficacy and agency to effect positive change in their local communities.

School educators who participate in Rivers to Sea with their students will work with Mass Audubon educators over the course of a year or more to strengthen their skills and confidence in integrating watershed topics into their curriculum, both in the outdoors and in their classrooms.

Together, we will support student-involved community action projects and help school educators build a support network with their local watershed organizations and other community stakeholders.





# Middle & High School

## Available Programs

### FOR ALL MIDDLE & HIGH SCHOOL PROGRAMS:

*Programs are available as a single school visit or field trip, or can be combined into a series that includes one school visit (45 minutes-1 hour) and a field trip (2 hours).*

*Locations: Your school, a community greenspace, and/or any South East wildlife sanctuary*

### Renewable Energy

*Grades 6-8 | fall, winter, or spring*

In the classroom, students will dive into a hands-on investigation of how energy makes its way through the environment in the forms of light, heat, and wind. Work with a teacher naturalist to discuss and explore and how we can capture that energy for our communities.

Then, take a trip to one of our local wildlife sanctuaries to discuss and learn the difference between renewable and non-renewable energies and why sustainable energy sources are important. Explore how Mass Audubon uses renewable energy sources to power its facilities.

### Weather vs. Climate

*Grades 6-8 | fall, winter, or spring*

In the classroom, students will explore the difference between weather and climate through activities and games. Learn how it impacts the land, how the land can be preserved to protect the spaces we love, and what people are doing to develop more climate- and storm-resilient communities.

In the field, through activities and games, students will explore the difference between weather and climate and why it's important for our municipalities to have a plan and be more prepared for managing storms. Learn how it impacts the land, and visit our wetlands to explore how preserving them benefits our local community.

### Landforms & Forest Ecology

*Grades 6-8 | fall, winter, or spring*

In the classroom, students will explore the life cycle of the forest and how living things respond to changes through structure and behavior. Look at foliage characteristics and plant adaptations to determine biodiversity. Discuss how plate tectonics or glaciers have shaped the forests we now explore.

Then, visit one of our local sanctuaries to explore evidence of plate tectonics or glacial activity from the past. Investigate the life cycle of the forest and how living things respond to changes through structure and behavior. Learn about some of the research Mass Audubon is doing to understand the effects climate change has on the land and wildlife.

### Bones & Skulls

*Grades 6-8 | fall, winter, or spring*

In the classroom, students will study bones and skulls to see a story of evolutionary response and variance within a variety of organisms. Working in groups, we will study real biological artifacts and hypothesize behaviors or functions based on our observations.

Take a trip to one of our local wildlife sanctuaries to discuss and explore evolutionary response and variance out in the field. Making observations, drawing and recording our ideas, discussing our findings with colleagues, and working with teacher naturalists make for a memorable educational experience.

### Watersheds & Pollution Solutions

*Grades 9-12 | fall, winter, or spring*

In the classroom, students will explore a watershed model and run an experiment to discuss the impacts of runoff, flooding, sediment distribution, and pollution. We will discuss groundwater and aquifers and explore the bioindicator species that help people monitor the health of our local watersheds.

In the field, students will explore a watershed model and run an experiment to discuss outcomes of runoff, flooding, sediment distribution, and potential pollution impacts. We will discuss groundwater and study real, live bioindicator species in our wetlands to help monitor its health.



# Middle & High School

## Available Programs (*continued*)

### Climate Change

Grades 9-12 | fall, winter, or spring

In the classroom, students will define climate, learn about the carbon cycle, discuss the impacts of climate change in their community, and explore ways to positively impact their environment. Group discussions will connect students to local efforts and how they can get involved. If done in a series, teacher naturalists can help facilitate project ideas for end-of-year service projects.

In the field, while incorporating some of the same activities and discussions from the classroom session, students will get to see renewable energy devices in action, visiting our solar panel array and discovering other alternative energy options.

### Understanding Endangered Species

Grades 9-12 | fall, winter, or spring

What are some of the challenges that conservation scientists have when trying to protect local endangered species like the Timber Pine Rattlesnake or the American Chestnut? 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. It could be Blanding's Turtles at Oak Knoll, River Herring at Tidmarsh, or coastal waterbirds at Allens Pond and North River.

## Specialty Programs

### Project B.E.A.K.

Grades 1-2 | fall, winter, spring

5-Program Series

The goal of this program is to engage students with hands-on activities that promote a greater awareness and appreciation of the places we live. Using birds as the focus, students make observations about the local environment and make connections between how plants and animals depend on their surroundings to survive. Each lesson introduces a new topic and builds upon the others so that connections can be made throughout the school year.

### Junior Conservationists

Grades 4-6 | fall, winter, spring

6-7-Program Series

The Junior Conservationist program was created to engage local students in place-based science and civics lessons. This interdisciplinary program contains a curriculum that reflects the mission and charge of local conservation commissions in Massachusetts and the role of the Wetlands Protection Act. This program also aligns with appropriate state science standards, and incorporates inquiry-based and STEAM-centered educational techniques for participants.





## Pricing & Affordability

Mass Audubon is committed to providing inclusive and equitable access to nature. Our school programs are designed to be accessible to as many schools, educators, and children as possible. **If cost is a barrier** for your students or school, please contact us—financial aid is available for schools with a high percentage of low-income students and we offer discounts for multiple visits.

### Field Experience Pricing

Field trip programs that take place at Mass Audubon wildlife sanctuaries are priced at an hourly flat rate for groups of 15 or fewer students. Larger groups will be broken into smaller groups of no more than 15 per Mass Audubon educator. Small group sizes enable us to provide each student with a high-quality experience and individualized attention.

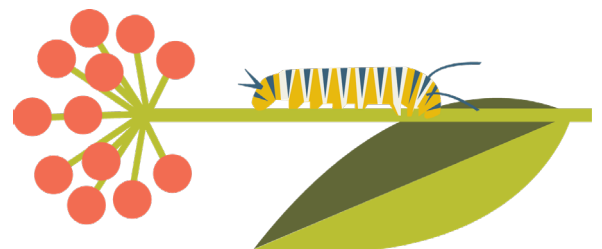
	1 Hour	1.5 Hours	2 Hours	2.5 Hours	3 Hours	4 Hours
First group (up to 15)	\$135	\$170	\$200	\$230	\$265	\$345
Additional groups of 15	\$110	\$145	\$170	\$200	\$225	\$270

### School-based Program Pricing

Programs for which our educators travel to your school are priced at an hourly rate for the entire class, up to 30 students. There is a two-session minimum for booking these programs. The price includes time spent on-site as well as mileage for travel times up to one hour; travel times over one hour incur an additional cost.

	30–45 minutes	50–65 minutes	70–90 minutes
First classroom	\$170	\$190	\$235
Each additional classroom (same program, same day)	\$100	\$120	\$140

**Special rates may apply for certain programs such as intensive labs visits that require additional prep time or materials costs. Please contact us for more information.**





## 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](https://massaudubon.org/pd) or contact [education@massaudubon.org](mailto:education@massaudubon.org).

### Early Education Workshops

Time spent in nature with young children is time well-spent: 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 [earlyyed@massaudubon.org](mailto:earlyyed@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/earlyyed](https://massaudubon.org/earlyyed) to learn more.



## School & District 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, contact [education@massaudubon.org](mailto:education@massaudubon.org).

## 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.

## Additional Support Services

### 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](mailto:education@massaudubon.org) to learn more.





# Find Your Sanctuary

Find a place to explore at:  
[massaudubon.org](https://massaudubon.org)

**Mass Audubon** Mass Audubon is the largest nature-based 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 160,000 members and supporters, we protect wildlife, conserve and restore 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 .