

**North Shore** 

# School Programs

**GRADES PRE-K-12** 

2022 2023 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 North Shore

Mass Audubon North Shore offers a wide variety of in-person and virtual programs to Pre-K-Grade 12 students across the North Shore and beyond.

Under the guidance of our education staff and field teachers, students investigate, explore, and marvel at the wonders of the natural world while enriching their knowledge of life and earth sciences.

Our programs cultivate an appreciation for and an understanding of the environment and human interrelationships with the natural world, developing thoughtful, conservationminded citizens for the future.

Our wildlife sanctuaries and education centers include:

Ipswich River, Topsfield Joppa Flats, Newburyport

#### **CONTACT INFORMATION**

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# 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.

# Mass Audubon North Shore

Rockery Trail at Ipswich River

Joppa Flats Education Center



Hellcat Observation Tower at Parker River NWR

# Our Wildlife Sanctuaries

#### Ipswich River Wildlife Sanctuary, Topsfield

Ipswich River Wildlife Sanctuary encompasses nearly 2,000 acres and more than 12 miles of interconnected trails that invite exploration of forests, meadows, wetlands, ponds, islands, and vernal pools.

Eight miles of the Ipswich River meander through the property, creating ample opportunities for quiet water paddling and making this an important place for wildlife year-round.

The sanctuary is also part of the Eastern Essex County Interior Forest Important Bird Area and is an important migratory stopover or seasonal concentration site for many different species of migratory birds.

#### Joppa Flats Education Center, Newburyport

Overlooking the Merrimack River and near the entrance to Parker River National Wildlife Refuge (NWR), the Joppa Flats Education Center offers unique educational opportunities for school, families, adults, and groups.

Joppa Flats staff offers onsite programs in the riverside yard, guided birding, time at our tide pool touch tank, and interpretive displays for visitors.

At nearby Parker River National Wildlife Refuge, students can explore wildlife-rich habitats including salt marshes, maritime forests, and sandy and rocky coast, and visit a working bird banding research station.







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 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 7 for more details.



# Available Programs

Imagine, Sing, and Learn Pre-K | fall, winter, or spring 1 session | 1 hour

Combine group role play, song, and animal artifacts to discover how animals live, grow, and adapt to their habitats. Available themes include:

Fall/Spring: Butterflies & Moths, Friends of the Garden, Signs of Spring, Tide Pools to Go\*, Salt Marsh: Nursery of the Sea\*

**Winter**: Arctic Animals, The World of Penguins, Eagles & Owls, Paws & Claws, Weather & Wildlife.

**All Seasons**: All About Birds, Beach Detectives, Ocean Giants, Wake Up: It's Night, Guided Nature Walks\*

Locations: At your school or at Joppa Flats

\*Indicates a program with specialty pricing. See page 13.

#### Signs of the Season

Pre-K-2 | fall, winter, and spring 3-session series | Schoolyard series option: 1 hour each; field trip series option: 1.5-2 hours each

**Schoolyard option**: Students will explore how wildlife adapts to seasonal changes during three classroom visits, one per season. We'll introduce items such as weather instruments, animal pelts, and reptile artifacts along with group games, sound effects, and schoolyard exploration.

**Field trip option**: Students will use a variety of senses and tools to discover the secrets of the season during three seasonal, guided walks during the fall, winter, and spring.

Locations: At your school and either Ipswich River or Joppa Flats

# Available Programs

#### **Animal Life Stories**

Grades K-2 | fall, winter, or spring

3-session series | A 1-hour classroom program, a 1.5–2-hour field trip, and a 1-hour wrap-up classroom program

Students will practice observation and journaling while exploring their schoolyard ecosystem, focusing on the tools and skills needed to observe wildlife during their field trip.

In the field, students will visit the habitats of wildlife to learn about their characteristics, structures, signs, and life cycles. They will have the opportunity to collect organisms and record data about their observations.

Back in the classroom, we'll engage in activities and discussion routines to more deeply investigate concepts and organisms observed during the field trip.

Available themes include:

**Spring**: Frogs, Toads, & Salamanders **Fall/Spring**: Birds; Insects & Their Kin

Winter: Winter Survival

Locations: At your school and either Ipswich River or Joppa Flats

#### **Habitat Safari**

Grades K-2 | fall or spring Single-session field trip | 2-4 hours

Explore the sanctuary and learn about wildlife and their habitats first-hand during one of these engaging field trips.

Spring: Frogs, Toads, & Salamanders

Students will visit aquatic and forest ecosystems to observe amphibians in their habitats and learn about their life cycle, structures, and characteristics.

Fall/Spring: Insects and Their Kin

Students will engage in macroinvertebrate sampling in different habitats to observe and discover the insect's special characteristics including life cycle and roles in their ecosystem such as pollination.

Location: Ipswich River

\*Indicates a program with specialty pricing. See page 13.







# Maple Sugaring

Experience first-hand the delicious tradition of maple sugaring. All grade levels welcome. See page 12 for details.

#### **Amazing Organisms**

Grades K–2 | fall, winter, or spring Single-session or series | 1 hour each

Get hands-on and use all of your senses to learn about different kinds of wildlife during these classroom explorations. Choose one or combine them into a series. Note: These programs do not include live animal encounters.

#### Birds

Introduce students to birds and their diverse habitat needs. Students will participate in activities using binoculars, investigate feeding behaviors, and begin to identify species by sight and sound. You have the option to focus the lesson on songbirds, penguins, or raptors.

#### Friends of the Garden

Introduce students to ladybugs and honey bees and their importance as pollinators. Students will participate in group role play, investigate insect behavior, and learn what characteristics all insects have.

#### **Nocturnal Animals**

Introduce students to animals that are actively in search of food at night and their unique adaptations and behavior. Students will participate in activities involving the sense of smell, sound and touch, and compare their abilities to creatures of the night.

#### Ocean Life

Students will compare the adaptations, behaviors, and life cycles of whales, sharks, and sea turtles with ocean artifacts, props, and small group challenges and an emphasis on conservation.

#### Owls\*

Students will learn about the behaviors and adaptations of local owls and have the chance to dissect an owl pellet.

Location: At your school



# Available Programs

#### Coastal Habitats & Ecosystems

Grades K-4 | fall and spring

3-session series | A 1-hour classroom program, a 1.5–2-hour field trip, and a 1-hour wrap-up classroom program

Students learn about and compare the physical characteristics of live marine organisms, beach sand, rocks, minerals, and live plants to prepare them for an on-the-coast field trip.

**Available themes include:** Rocky Shore/Tide Pools\*, Salt Marsh\*, and Sandy Beach (topics can be combined)

In the field, students will visit and investigate the seashore or estuary to learn first-hand about zonation, the effects of erosion and weathering, proper collecting and handling techniques for wildlife, and adaptations of live organisms.

Back in the classroom, we'll wrap up with a series of STEM activities and investigations in which students will demonstrate their understanding of why organisms are well-suited to specific habitats.

Locations: At your school and Joppa Flats

**Allergy Note**: This program features live crustaceans, mollusks, and fish.

### **Comparing Ecosystems**

Grades 1-3 | fall and spring

3-session series | A 1-hour classroom program, a 1.5–2-hour field trip, and a 1-hour wrap-up classroom program

Also available as a stand-alone field trip program.

Students will practice observation and journaling while exploring their schoolyard ecosystem, then head into the field to investigate three ecosystems. We'll observe the organisms inhabiting the wildlife sanctuary, comparing what makes each unique in its characteristics, structures, and needs.

Back in the classroom, we'll wrap things up with a series of activities, investigations, and discussion routines in which students will demonstrate their understanding of why organisms are well-suited to specific habitats.

Locations: At your school and Ipswich River

#### Landscapes & Landforms

Grades 2-4 | fall and spring

3-session series | A 1-hour classroom program, a 1.5–2-hour field trip, and a 1-hour wrap-up classroom program

Also available as a stand-alone field trip program.

During the introductory classroom session, students will experiment with sand and soil to test the effects of wind and water on landscape models, then design and test a simulated landscape to determine its resistance to erosion. Students will discuss natural and human-made forces that shape landscapes through prediction and problem-solving exercises.

Ipswich River Wildlife Sanctuary is a dynamic landscape with observable, glacier-made landforms; in the field, students will study these formations and collect data on the effects of weathering, erosion, and deposition in our local ecosystems.

Back in the classroom, we'll wrap up with a series of activities, investigations, and discussion routines in which they will demonstrate their understanding of the role of erosion and human impacts on landscapes and landforms.

Locations: At your school and Ipswich River

# Animal Adaptations (Classroom Program)

Grades 3-5 | year-round

Single-session or series | 1 hour each

Get hands-on in the classroom or the schoolyard as you learn about the adaptations of various kinds of wildlife. Choose one or combine them into a series. Note: These programs do not include live animal encounters.

Available themes include:

#### **Mammals**

Examine animal artifacts to discover how animals are adapted to the places and climates in which they live. Learn about teeth adaptations, food preferences, habitat, winter survival, camouflage, and much more.

#### Birds & Bird Banding

Introduce students to birds and their diverse habitat







# Available Programs

needs. Students will participate in activities using binoculars, investigate feeding behaviors, and begin to identify species by sight and sound.

#### Owls\*

Students will learn about the behaviors and adaptations of our local owls and have the chance to dissect an owl pellet.

Location: Your classroom

#### **Animal Adaptations (Field Trips)**

Grades 3–5 | fall, winter, or spring Single-session field trip | 2 hours

Explore a wildlife sanctuary or refuge and learn about wildlife and their unique adaptations first-hand during one of these engaging field trips.

Available themes include:

#### Birds & Bird Banding\*

Students learn about characteristics, structures, and life cycles of native birds during a hike and interaction with bird artifacts, group simulation challenge, and the opportunity to practice with binoculars.

Location: Parker River National Wildlife Refuge

#### Winter Wildlife Adaptations

On a winter hike, students will examine the survival strategies of animals in winter and learn basic tracking identification skills while investigating winter habitats. Winter only.

Location: Ipswich River Wildlife Sanctuary

#### Survival in Ecosystems

Grade 4 | fall and spring

3-session series | A 1-hour classroom program, a 1.5–2-hour field trip, and a 1-hour wrap-up classroom program

Also available as a stand-alone field trip program.

Explore organisms and their survival strategies in their natural habitats. Discovery activities for meadow, forest, and wetland are available, depending on the ecosystems and habitats available in your schoolyard. Choose a

\*Indicates a program with specialty pricing. See page 13.

stand-alone program focusing on a single ecosystem type or a series focusing on different ecosystems each session.

In the field, students will investigate three different ecosystems found at Ipswich River Wildlife Sanctuary. Observe field, forest, and pond organisms and gather data on the physical structures that allow them to survive and thrive.

Back in the classroom, we'll wrap up with a series of activities, investigations, and discussion routines in which students will demonstrate their understanding of the adaptive traits and behaviors of organisms in our local ecosystems and how those adaptations allow for individuals and populations to survive in their habitats.

Locations: At your school and Ipswich River Wildlife Sanctuary

# Naturalist-in-Residence

### Weekly or monthly visits from a Mass Audubon naturalist at your school

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. Frequency of visits can vary from weekly to monthly visits.

Available for grades K-5.







# Available Programs

### **Energy Flow in Ecosystems**

Grade 5 | fall and spring

3-session series | A 1-hour classroom program, a 1.5–2-hour field trip, and a 1-hour wrap-up classroom program

Explore the ways in which energy from the sun moves through living things in ecosystems via photosynthesis and feeding relationships between consumers and decomposers. Students will participate in a variety of simulations and explorations to understand the role of energy and matter cycles.

In the field, students will explore the living and nonliving factors that make up the wildlife sanctuary's ecosystems. Sample and observe organisms and gather data to model the flow of energy and the cycling of matter.

Back in the classroom, we'll wrap up with a series of activities, investigations, and discussion routines in which students will demonstrate their understanding of how individual organisms obtain and use energy and the energy dynamics of ecosystems.

Locations: At your school and Ipswich River Wildlife Sanctuary



# 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 9.

# **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.

#### **Nature Club**

Grades Pre-K-5 | fall, winter, and spring 3-10 sessions | 1 hour each

Children explore outdoor nature spaces while discovering wildlife, playing games, and engaging in thoughtful activities and nature play. Outdoor activity is weather-dependent.



#### Awesome Adaptations

Grades 1-5 | fall, winter, and spring 3-10 sessions | 1 hour each

Students explore the traits and behaviors that help living things survive. Includes fun crafts, games, and hands-on science. Choose from the following themes or build a series: mammals, birds, insects, amphibians, reptiles, trees, and/or plants.

# Extraordinary Ecosystems Grades 1–5 | fall, winter, and spring 3–10 sessions | 1 hour each

Students investigate the organisms and habitats in their schoolyard using scientific tools and skills. Also includes crafts and games to help make meaning from our interconnected world.







# 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.

Science of Massachusetts

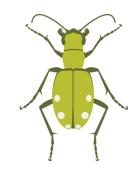
### Science of Massachusetts: Available Units

### 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.







# 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 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

### **Energy Flow in Wetlands**

Grades 6-8 | fall and spring

3-session series | A 1-hour classroom program, a 1.5-2-hour field trip, and a 1-hour wrap-up classroom program

Explore the ways in which energy from the sun moves through living things in ecosystems via photosynthesis and feeding relationships between consumers and decomposers. Students will participate in a variety of simulations and explorations in the classroom or schoolyard to understand the role of energy and matter cycles.

In the field, students will identify local wetland plants, collect water samples, and catch aquatic organisms in order to investigate how matter is recycled and how energy flows in aquatic ecosystems. Based on observation and data collection, students will discover human impacts and discuss solutions to protect our wetlands.

Back in the classroom, we'll wrap up with a series of activities, investigations, and discussion routines in which they will demonstrate their understanding of how individual organisms obtain and use energy and the energy dynamics of ecosystems.

Locations: At your school and Ipswich River Wildlife Sanctuary

# Birds, Banding, and Migration

Grades 6-8 | fall and spring

3-session series | A 1-hour classroom program, a 1.5–2-hour field trip, and a 1-hour wrap-up classroom program

In the classroom, students will learn about the importance of bird banding research with a multimedia virtual tour of our bird banding station. They will learn about songbird migration elements and use a field guide and migration maps in an interactive group challenge.

In the field, we'll visit a bird banding station to observe how migratory birds are captured, identified, studied, and released. Learn about native plants that provide nourishment, nesting material, and shelter for birds on a guided bird walk and use binoculars in the field to find and identify birds by sight and sound.

We'll wrap things up back in the classroom with a one-hour lab session in which students will practice bird banding skills like species identification, taking measurements, and using banding tools with life-size bird models and discuss how climate change affects birds over time.

Locations: Your school and Parker River National Wildlife Refuge

# Coastal Erosion & the Dune Ecosystem Grades 6-8 | fall and spring

3-session series | A 1-hour classroom program, a 1.5-2-hour field trip, and a 1-hour wrap-up classroom program

Students will learn about a coastal ecosystem and the challenges of climate change, weathering, and erosion and interact with actual plant and sediment samples in the classroom. Effects of climate change and human impact may be discussed.

In the field, we'll explore a coastal ecosystem to see firsthand evidence of erosion, examples of weathering, and sand composition and transport.

We'll wrap things up back in the classroom with a one-hour lab session in which students will engage with a series of activities, investigations, and discussion routines to demonstrate their understanding of why our coastal ecosystems need protection and how we can slow the natural process of erosion.

Locations: At your school and Joppa Flats, Plum Island, or a suitable nearby community greenspace.







# Middle & High School

# Available Programs



# Maple Sugaring

Experience first-hand the delicious tradition of maple sugaring. All grade levels welcome. See page 12 for details.

#### Coastal Ecosystems

Grades 6-12 | fall and spring

3-session series | A 1-hour classroom program, a 1.5–2-hour field trip, and a 1-hour wrap-up classroom program

Students will learn about a coastal ecosystem and its zonation. This program includes a presentation on rocky intertidal zonation and an opportunity to view and handle a variety of live marine organisms.

On the beach, students will conduct live animal inventories, water sampling, data collection, and population studies.

In a one-hour lab session back in the classroom, we'll wrap things up with a series of activities, investigations, and discussion routines in which they will demonstrate their understanding of the needs of the inhabitants found in a coastal ecosystem and how climate change affects them over time.

Locations: At your school and Joppa Flats, Plum Island, or a suitable nearby community greenspace.

**Allergy Note**: This program features live crustaceans, mollusks, and fish.

#### River Ecology by Canoe

Grades 6-12 | May 1-October 31 Single field trip or series | 3-4 hours each

Canoe the gentle waters of the Ipswich River, exploring the animals and plants of the floodplain forests and marshes. Students will practice macroinvertebrate sampling, investigate natural and human influences on the river, and learn how to protect their community water resources.

Location: Ipswich River Wildlife Sanctuary



# 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 i-plan.us.



Middle & High School Programs







# **Additional Programs**

### Civic Engagement Programs (Middle & High School)

#### Sea Level Rise Grades 6–12 | winter and spring Multi-session program series

Students will learn the science and solutions surrounding climate change-driven sea level rise on Massachusetts' coasts. They'll practice real science and civic engagement, use online mapping tools, and learn about their town's Municipal Vulnerability Plan.

Skills and data obtained during field exercises will illuminate the specific way in which rising tide waters will affect their local shores both daily and during severe storms.

Students will complete this program with a presentation to their town's local planning board and conservation commission to raise awareness and discuss solutions to mitigate and adapt to sea level rise.

Location: Your school and community field locations

#### Salt Marsh Science Grades 6-12 | fall

Multi-session program series

Students will participate in a community science program centered on the conservation of Massachusetts' Great Marsh.

Participants will be trained in the field to practice science skills and protocols and contribute data to an ongoing study of the salt marsh. Students will investigate salt marsh botany, how ecological patterns are affected by salinity, the control of invasive plants, and the effects of human infrastructure on salt marsh habitat.

The culminating project of this program is a presentation at a conference where students participating in this study from multiple districts discuss their findings.

Location: Your school, community field locations, and the Great Marsh

# Seasonal (All Grade Levels)

#### Maple Sugaring

Grades K-12 | Select dates in March Single program | 1- or 2-hours

Students experience first-hand the delicious tradition of maple sugaring. Observe trees and learn about their life processes, and see and taste sap as it's being collected. The program concludes with a visit to our sugarhouse to see how sap is transformed into maple syrup, complete with a sweet sample of the end result.

The two-hour program option includes a winter walk to discover the adaptations and survival strategies of winter wildlife.

Location: Ipswich River Wildlife Sanctuary



Additional Programs



# 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 Trip 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. If the program demands smaller groups (e.g. intensive science program where student-to-educator ratio must be 5:1), then the school will be charged for the number of smaller groups. There will be a \$30 per school bus entrance fee for any program that takes place at the Parker River National Wildlife Refuge.

	1 Hour	1.5 Hours	2 Hours	2.5 Hours	3 Hours	3.5 Hours	4 Hours
First group (up to 15)	\$130	\$150	\$180	\$210	\$230	\$250	\$280
Additional groups of 15	\$100	\$120	\$150	\$170	\$200	\$220	\$240

# Classroom Discovery 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.

	Standard Rate	Live Animal Programs	Owl Pellet Dissection
First hour	\$160	\$205	\$170
Each additional hour	\$105	\$155	\$115

<sup>\*</sup>Programs (and individual program themes) marked with an asterisk indicate special pricing for that program. Special rates apply for programs, such as intensive labs or live animal visits, that require additional prep time, staff expertise, or materials costs.

Pricing & Affordability 13





# **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 an immersive experience, try one of our professional development Summer Institutes!

Program details, dates and times, registration information, and additional offerings can be found on our website at massaudubon.org/pd.

### Summer Institutes

# Nature School for Teachers: Schoolyard Habitats

Four in-person, day-long sessions, plus one online follow-up session in November

Nature School for Teachers is an opportunity for K-8 teachers to immerse themselves in science by exploring their local habitat and meaningfully connecting with the science practices embedded in the Massachusetts Science Frameworks.

Participants will practice inquiry-based learning methods through hands-on exploration of local habitats, field research, and an investigation design process they can bring back to their classrooms.

Locations: Either Drumlin Farm Wildlife Sanctuary, Lincoln or Moose Hill Wildlife Sanctuary, Sharon

### Virtual Workshops

#### **Teaching Climate Justice**

Three online sessions, two hours each

Join educators from across the state and gain the skills, tools, and resources to teach climate change.

In this three-part, virtual workshop series, participants will review the basics of climate change science, learn about local climate impacts through a climate justice lens, and explore how to support students' involvement in meaningful solutions to climate change in their communities.

Location: Online



Professional Development





### School & District Workshops

### Early Education (Preschool-Grade 2)

#### Inside & Outside with Nature

With packed schedules and variable access to time outdoors and natural resources, how do you make environmental learning more of a presence in your classroom? In this three-part series, we'll explore where nature can fit into your daily routines (hint: everywhere!) and how to incorporate it seamlessly.

Whether you are an urban, rural, or suburban-based school, the workshops in this series will demonstrate ways to bring nature into learning every day.

Register for the full, three-part series and receive a 25% discount on a site visit at your school, or register for a single workshop. Detailed workshop descriptions are available on our website at massaudubon.org/pd.

### Grades K-8

#### **Bringing Learning Outdoors**

Make the most of whatever nature surrounds your schoolyard, whether that's a parking lot, a suburban lawn or a forest. In this three-part series, we'll help participants use inquiry-based techniques to incorporate the nature around them into their curriculum, while imparting practical skills to make outdoor learning a realistic, enjoyable, and effective part of the school experience.

Register for the full, three-part series and receive a 15% discount, or register for a single workshop.

# 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.



Professional Development 15





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 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.