

# Central School Programs

# **GRADES PRE-K-12**

2023 2024 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 Central

Mass Audubon Central encompasses two staffed wildlife sanctuaries with nature centers and 10 additional sanctuaries with trail systems across the central Massachusetts region. Historic stone walls, forests and fields, slopes, hills, flatlands, and bucolic vistas can be found across the diverse properties in the region. Our facilities include accessible trails, historic structures, sustainable buildings and infrastructure, restrooms, wildlife and rain gardens, exhibit spaces, and even snowshoe rentals in winter.

#### Broad Meadow Brook, Worcester Wachusett Meadow, Princeton

Burncoat Pond, Spencer Cook's Canyon, Barre Eagle Lake, Holden Flat Rock, Fitchburg Lake Wampanoag, Gardner Lincoln Woods, Leominster Nashoba Hill, Westford Pierpont Meadow, Dudley Rocky Hill, Groton Rutland Brook, Petersham

#### CONTACT INFORMATION

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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.

# **Mass Audubon Central**



Broad Meadow Brook



Wachusett Meadow



# **Our Wildlife Sanctuaries**

#### Broad Meadow Brook Wildlife Sanctuary, Worcester

Broad Meadow Brook is the largest urban wildlife sanctuary in New England, with more than 400 acres cooperatively managed or owned by Mass Audubon. Located just a few miles from downtown Worcester and easily accessed from major highways, Broad Meadow Brook is an oasis in the city. Interpretive signs guide you along five miles of well-marked trails through woods, fields, streams, and marsh. The Fargo Education Center is a 100% renewable energy retrofit of an existing home. Outdoor program spaces include a sheltered pavilion and extensive covered porch attached to the Education Center. Pollinator and rain gardens make great, hands-on learning focal points.

#### Wachusett Meadow Wildlife Sanctuary, Princeton

A former farmstead, Wachusett Meadow offers spectacular scenery and supports abundant wildlife throughout woodlands, wetlands, and meadows. Historic buildings and barns are still in use for educational programming and a small flock of resident sheep graze and help maintain the pastures. An extensive 13mile trail system traverses the sanctuary's 1,100 acres and touch upon many landscape features, including Brown Hill summit, a glacial boulder, ancient trees, and beaver ponds.

#### Wildlife Sanctuaries with Trails Only

Mass Audubon Central can host school programming at many other Mass Audubon properties in the central Massachusetts region, each of which offers unique opportunities for nature discovery, wildlife viewing, and habitat exploration.

Burncoat Pond, Spencer Cook's Canyon, Barre Eagle Lake, Holden Flat Rock, Fitchburg Lake Wampanoag, Gardner Lincoln Woods, Leominster Nashoba Hill, Westford Pierpont Meadow, Dudley Rocky Hill, Groton Rutland Brook, Petersham

Rocky Hill



# 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, naturebased science right in their own schoolyard.

See page 5 for more details.



## **Additional Programs**

## Animal Stories & Investigations

#### Pre-K-K | fall, winter, or spring Single program | One school visit or one field trip (1 hour)

In the classroom, students will work on building inquiry skills, including making observations and questioning, as we uncover the fascinating world of animals through stories, crafts, movement games, and songs.

In the field, open a window to the natural world by exploring the sanctuary trails with a seasoned naturalist. Practice inquiry skills by questioning and making observations about native animals through stories, crafts, movement games, and songs.

Select one of these topics or book the entire series:

**Bees**: Listen to a story and perform the "Bee Dance" as you learn about the life history of the honeybee. Examine a bee hive, then create a bee-related craft.

Ladybugs: Listen to a story, sing songs, and participate in finger plays as you learn about the life history of the ladybug. Examine ladybug patterns, then create your own wearable ladybug.

**Night & Day Animals**: Listen to a story, then make an animal craft to use in a game. Using flannel board characters, learn about the nocturnal and diurnal animals of the forest.

Locations: This program may take place at your school, Broad Meadow Brook, or Wachusett Meadow

## Additional Programs

#### Wonder Walks

#### Pre-K-Grade 1 | fall, winter, or spring Single program | School visit or field trip (1 hour)

Go on a gentle exploration of wildlife sanctuary trails or your schoolyard. We'll use our senses to sniff a smelly plant, find something with gentle prickles, contrast colors in nature, and listen to the sound of the wind or birds singing. Learn to use a magnifier or other introductory observation tools.

Young children will become more familiar and comfortable with nature in this friendly introductory program.

Locations: Your schoolyard, Broad Meadow Brook, or Wachusett Meadow

#### Birds

Pre-K-Grade 5 | fall, winter, or spring Series | Two school visits (1 hour each) and one field trip (2 hours)

In the classroom, students will receive an introduction to birds through hands-on explorations, focusing their learning on bird anatomy, identification by both sight and sound, bird habitats, and adaptations.

In the second classroom session, Life History of Birds, students will explore the challenges of living as a bird, including nest-building, raising young, and seasonal migration.

In the field, students will learn how to use optics, such as binoculars, then try out their new skills on a guided hike through the sanctuary or schoolyard to locate, observe, and listen to birds and record their observations in a nature journal.

Locations: Field trip may take place at Broad Meadow Brook, Wachusett Meadow, your schoolyard, or a suitable community greenspace.

#### Ponding

#### Pre-K-Grade 5 | fall or spring Single field trip | Schoolyard (1 hour) or a wildlife sanctuary (2 hours)

Through close observation and inquiry-based learning, students will be introduced to wetland habitats. Using scientific tools, students will collect and identify aquatic macro-invertebrates, observe behaviors, and examine adaptations for survival in these watery habitats.

At Broad Meadow Brook, the focus will be on vernal pools and streams. At Wachusett Meadow, the focus will be on wetlands and ponds.

Locations: Field trip may take place at Broad Meadow Brook, Wachusett Meadow, your schoolyard (if there is an accessible pond), or a suitable community greenspace.



#### 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.









## Additional Programs (continued)

#### Habitats

Pre-K-Grade 5 | fall, winter, or spring Single field trip | Schoolyard (1 hour for Pre-K-K, 1.5 hours for grades 1-5) or a wildlife sanctuary (1.5 hours for Pre-K-K, 2 hours for grades 1-5)

Students will explore several habitats such as forest, meadow, wetland, vernal pool, stream, or edge habitat, and compare the plant and animal communities found in each. Discover the connections between plants and animals, why certain species prefer specific habitats, and how changes to a habitat can impact the species that live there.

Locations: Any Central wildlife sanctuary, your schoolyard, or a suitable community greenspace.

#### Seed Explorations

Pre-K-Grade 5 | fall, winter (classroom only), or spring Single program | Schoolyard (1 hour for Pre-K-K, 1.5 hours for grades 1-5) or a wildlife sanctuary (1.5 hours for Pre-K-K, 2 hours for grades 1-5)

Through hands-on discovery, students will explore the life cycle of plants and examine the amazing world of plant adaptations. Visit your schoolyard or a meadow at a wildlife sanctuary where we'll observe the variety of plants, explore the relationship between structure and function, and examine plant adaptations and how seeds travel.

Locations: Your schoolyard, a suitable community greenspace, or either Broad Meadow Brook or Wachusett Meadow.

#### **Nature Detectives**

#### K–Grade 1 | fall, winter, or spring Series | One school visit (1 hour) plus a field trip (2 hours)

Seek out and discover clues in the natural world like a nature detective. Students will learn to observe and read clues such as tracks, scat, holes, nests, and scratch marks and how to interpret what they mean.

On a guided walk through a wildlife sanctuary or your schoolyard, students will use what they learned in the classroom to discover and interpret clues they find while exploring the natural world.

Locations: Your school and either Broad Meadow Brook or Wachusett Meadow

#### **Animal Investigations**

#### K-Grade 3 | fall, winter, or spring (topic-depending) Series | One school visit (1 hour) and a field trip (2 hours)

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

**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.

**Butterflies**: Students will learn about the life cycles and characteristics of butterflies, discover which butterflies call Massachusetts home, and uncover the differences between butterflies and moths through hands-on activities and music.

While on a guided exploration of your school yard or wildlife sanctuary trails, students will use what they learned in the classroom to search for owls or butterflies, discover which habitats might be home to these animals, and discuss the challenges they might face.

Locations: Your school and either Broad Meadow Brook or Wachusett Meadow

#### Tracks and Trails

#### Grades 1–3 | fall or winter Series | One school visit (1 hour) plus a field trip (2 hours)

In the classroom, students will be introduced to the art of tracking. Through hands-on activities, students will learn to identify tracking patterns and shapes made by animals as they travel in snow or mud. Compare your footprint to wild animals as you learn how to measure your stride.

While on a guided hike of the schoolyard or wildlife sanctuary trails, students will use the skills they learned in the classroom to decode the tracks and signs that they discover while exploring the area.

Locations: Field trip may take place in your schoolyard or any Central wildlife sanctuary

#### **Animal Adaptations**

Grades 2-5 | fall, winter, or spring Series | One school visit (1 hour), followed by a field trip (2 hours), and a wrap-up classroom program (1 hour)

In the classroom or schoolyard, students will observe and identify adaptations of common animals, then play an adaptation game.

Then, through hands-on activities and outdoor exploration, students will explore the concept of adaptation and identify how local wildlife use physical characteristics and behaviors to meet their needs.

Back in the classroom, students will create a creature with specific adaptations (real or imaginary) out of recycled materials.

Locations: Field trip may take place at Broad Meadow Brook, Wachusett Meadow, or a suitable community greenspace.



# 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.

# 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

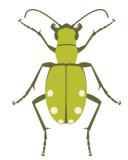
In this unit, students will get outside and investigate the ways stronger storms impact their communities, specifically through rain and snow. They will identify places of vulnerability and places of resilience in their schoolyard or neighborhood. As a culminating project, they will design solutions 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.



# Available Programs

#### Biomimicry: Solutions Inspired by Nature Grades 6–8 | fall, winter, or spring

Single program or series | One school visit (1 hour) and/or one field trip (2 hours)

This program will combine biology and technology to empower students to think of how to create a more sustainable human world.

Using a wide variety of local specimens, we will introduce students to local, native plants and animals through hands-on observation and investigation. Students will then transition from learning about the natural world to learning from the natural world: Biomimicry, the emerging discipline of emulating nature's best ideas to solve human problems, turns biological strategies into design principles. Famous examples include Velcro inspired by burdock burrs, solar cells inspired by plant leaves, and self-cleaning exterior paint inspired by the lotus flower plant.

After a short presentation on biomimicry, students will pick a human problem and brainstorm ways that natural objects may inspire solutions.

Locations: Your school and either Broad Meadow Brook or Wachusett Meadow

#### The Science of Trees

Grades 6–8 | fall, winter, or spring Series | One school visit (1 hour), followed by a field trip (1.5 hours), then a final school visit (1 hours)

How do trees function? In the classroom, students will investigate the internal workings of a tree, including photosynthesis and the physiological role of leaves, stems and roots. Learn how trees help mitigate the impacts of climate change through carbon sequestration.

In the field, students will explore a variety of habitats while walking the sanctuary trails, the schoolyard, or a nearby greenspace, learning about the important role trees play in the ecosystem. Working in teams, students will measure several trees, then use this information to calculate the oxygen generation and carbon sequestration of each tree.

Back in the classroom, we'll explore questions like "What is a watershed and why are trees important to your watershed? What impacts would be experienced if trees were absent from our environment?" Students will investigate the significant roles trees play in the water cycle, the maintenance of water quality, and the proper functioning of watersheds.

Locations: Your school and either Broad Meadow Brook, Wachusett Meadow, your schoolyard, or a suitable community greenspace

#### **Climate Change Hike**

Grades 6–12 | fall, winter, or spring Single field trip | Schoolyard/greenspace (1 hour) or wildlife sanctuary (1.5 hours)

Students will explore the schoolyard or a local greenspace OR will visit key areas of a wildlife sanctuary that are being, or will be, affected by climate change and that can contribute to buffering the impacts of climate change.

Examples include: the increase of southern butterflies and birds; changing moose numbers; the impact of trees on air quality, temperature, and potential flooding; 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.

Locations: At your school, a community greenspace, or either Broad Meadow Brook or Wachusett Meadow







Middle & High School Programs

## Available Programs (continued)

#### Birds

#### Grades 6–12 | fall, winter, or spring Series | Two school visits (1 hour) and a field trip (2 hours)

In the introductory classroom session, students will learn how to identify birds by both sight and sound, accompanied by a study of bird anatomy and bird behavior. Students will be able to practice their new identification skills during their field trip.

In the second visit, through experiential learning activities, students will explore bird adaptations and discover how some species of birds are affected by climate change. Bird migration and the mechanics of bird flight will also be investigated.

While hiking the sanctuary trails, students will use the knowledge learned in the classroom sessions to explore a variety of bird habitats. They will make observations (both visual and auditory), recording their observations in a nature journal. Students will be introduced to how they can participate in community science projects and contribute to birding databases online.

Locations: Your school and either Broad Meadow Brook or Wachusett Meadow

#### **Freshwater Ecology**

Grades 6–12 | fall or spring Single field trip | Schoolyard/greenspace (1 hour) or wildlife sanctuary (2 hours)

Students will conduct an in-depth survey of one or two freshwater habitats with a focus on populations and species identification. While classifying the animals they encounter, students will investigate the adaptations needed for survival in each habitat. comparing species composition in different wetland habitats or determining water quality based on species composition.

If exploring Broad Meadow Brook, students will survey vernal pools and a stream.

If exploring Wachusett Meadow, students will focus on wetlands and ponds.

Locations: At your school or a community greenspace with an accessible pond or stream, or either Broad Meadow Brook or Wachusett Meadow





#### **Ecosystem Dynamics**

Grades 6–12 | fall, winter, or spring Single field trip | 2 hours

Students will explore a variety of terrestrial ecosystems such as woodlands, wetlands, meadows, ponds, or streams, depending on program location.

Students will identify how organisms relate to one another (predation, competition, mutualism, parasitism), examine adaptations that enable plants and animals to succeed, and model how energy flows through trophic levels.

Discussion can be extended to the environmental stability of the habitat in the face of climate disruption.

Locations: Broad Meadow Brook or Wachusett Meadow

#### **Animal Skulls Exploration**

Grades 6-12 | fall, winter, or spring Single program or series | One school visit (1 hour) or one school visit (1 hour) and one field trip (2 hours)

Compare mammal skulls and determine the adaptations that have allowed each animal to survive as a predator or prey. Learn how to deduce an animal's diet from knowledge of its teeth; read clues to distinguish between herbivores, carnivores, and omnivores; and use your observation skills to identify unknown skulls.

On a follow-up field trip, students will use this information during an exploration of a wildlife sanctuary or their schoolyard. While searching for signs left behind by primary and secondary consumers, students will construct a model of the food chains involved, linking these chains to create the diverse food web of this ecosystem.

Locations: Your school and/or either Broad Meadow Brook or Wachusett Meadow

Middle & High School Programs







# **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.

#### Environmental Leaders Club Available for grades 6–12

This year-long, project-based afterschool program engages youth in learning about environmental issues affecting their own community and developing solutions that will make an impact.

Students will participate in hands-on, nature-based learning; practice communication, leadership, and teamwork skills; meet adults in environmental careers; and give back to their community.

## 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 **i-plan.us**.

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 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.

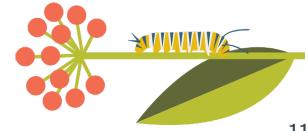
	1 Hour	1.5 Hours	2 Hours	2.5 Hours	3 Hours	4 Hours
First group (up to 15)	\$135	\$170	\$200	\$230	\$265	\$345
Additional groups of 15	\$110	\$145	\$170	\$200	\$225	\$270

## 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.

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.

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





# **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, contact **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 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 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.