



School Program Name: Insect Adaptations
Name of Sanctuary: Boston Nature Center
Grade Level: 3-5
Location Options: At sanctuary
Time: 2 hours
For more info: bnc@massaudubon.org or
617-983-8500

Program Description

Students will explore a meadow to investigate insect adaptations and life cycles. This program is NOT offered in November, December, January, February, or March.

Massachusetts Curriculum Frameworks

Framework: Science and Technology
Strand: Life Science
Topic: Structures and Functions
Adaptations of Living Things

Learning Standards

Structures and Functions

- 3-5 Life Science #3: Recognize that plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death.
- 3-5 Life Science #4: Describe the major stages that characterize life cycles.

Adaptations of Living Things

- 3-5 Life Science #6: Give examples of how inherited characteristics may change over time as adaptations to changes in the environment that enable organisms to survive, e.g., shape of beak or feet, placement of eyes on head, length of neck, shape of teeth, color.

Massachusetts Curriculum Frameworks

Framework: English Language Arts
Strand: Language
Topic: Questioning, Listening, and Contributing

Learning Standards

Questioning, Listening, and Contributing





PreK-12 Language #2: Students will pose questions, listen to the ideas of others, and contribute their own information or ideas in group discussions or interviews in order to acquire new knowledge.

Massachusetts Curriculum Frameworks

Framework: English Language Arts
Strand: Composition
Topic: Writing

Learning Standards

Writing

PreK-12 Composition #19: Students will write with a clear focus, coherent organization, and sufficient detail.

Massachusetts Curriculum Standards

Framework: Arts
Strand: Visual Arts
Topic: Observation, Abstraction, Invention, and Expression

Learning Standards

Observation, Abstraction, Invention, and Expression

PreK-12 Visual Arts #3: Students will demonstrate their powers of observation, abstraction, invention, and expression in a variety of media, materials, and techniques.

Lesson Objectives

What will students know and be able to do? These objectives must be observable and measurable.

Students will know and be able to:

- Give examples of insect adaptations.
- Describe the major stages of an insect's life cycle.

Vocabulary

adaptation

life cycle

meadow

characteristic

habitat



Assessments

How will the Mass Audubon Educator know that the students have met the standards?

- Mass Audubon Educator will observe students exploring, observing, and identifying meadow organisms.
- Students will participate in answering Mass Audubon Educator-prompted questions about meadow animal life cycles and adaptations.
- Students will draw pictures of a meadow animal, showing how that organism is adapted to the meadow habitat.

Summarizer

How will the Mass Audubon Educator close the lesson to see if students met the objectives?

- Students will share their writing about a meadow insect and its adaptations.



Mass Audubon School Programs

At Mass Audubon we strive to create learning experiences that are enriching, innovative, meaningful, and engaging. All our school programs are aligned with Massachusetts Curriculum Frameworks. Our network of wildlife sanctuaries and nature centers located in urban, suburban, and rural communities around the state enable us to have strong relationships with local schools.

Our Education Foundations

- Place-based education is an educational philosophy that connects learning to what is local for an individual. We help build conservation communities, working with students and teachers in cities and towns to develop place-based environmental education that is linked directly to their home community.
 - Inquiry-based learning is focused on teamwork, being learner-centered, questioning ourselves and the world around us, providing a more focused, time-intensive exploration, promoting lifelong learning, communication, and learning as fun.
 - We are fully committed to creating a positive and supportive environment for all learners.
 - We strive to be culturally sensitive, recognizing and embracing cultural differences.
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Differentiated Instruction

- We strive to create a positive learning environment that is inclusive, supportive to all learners, and sensitive to cultural diversity.
 - Outdoor classroom experiences are structured to meet the needs of the particular learners.
 - Students work in small groups using hands-on materials.
 - A variety of educational media are used, including colorful illustrations.
 - With advance notice, efforts will be made to accommodate all learning styles and physical needs.
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Notes

- Nature exploration is dependent upon the weather and other conditions. A class might observe different wildlife than they expected to see. An outdoor lesson can sometimes provide unexpected, but enriching teachable moments on a natural history topic that was not planned.
- Mass Audubon nature centers each have a unique landscape and will customize programs to work best at their particular site.
- Our lessons can be adapted to incorporate a classroom teacher's needs.

