Mass Audubon
Protecting the Nature of Massachusetts

School Program Name:	Bird Adaptations
Name of Sanctuary:	Wachusett Meadow Wildlife Sanctuary
Grade Level:	3-5
Location Options:	At sanctuary
Time:	2 hours
For more info:	wachusett@massaudubon.org or 978-464-2712

Program Description

Students will learn how birds are adapted to survive in their habitat through pictures, models, and observing birds in the wild.

Massachusetts Curriculum Frameworks

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

Learning Standards

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.
3-5 Life Science #7:	Give examples of how changes in the environment (drought, cold) have caused some plants and animals to die or move to new locations (migration).
3-5 Life Science #8:	Describe how organisms meet some of their needs in an environment by using behaviors (patterns of activities) in response to information (stimuli) received from the environment. Recognize that some animal behaviors are instinctive (e.g., turtles burying their eggs), and others are learned (e.g., humans building fires for warmth, chimpanzees learning how to use tools).

Massachusetts Curriculum Frameworks

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

Learning Standards

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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: 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 physical characteristics and behaviors that help a bird survive in its habitat.
- Make an educated guess about what an animal eats based on its physical characteristics.
- Explain why birds migrate and describe some of the challenges they face and how people can help them.

Vocabulary

adaptation
beak
behavior
breeding area
feather
habitat
habitat loss
migration
physical characteristic
predator
prey
wings

Assessments

How will you know that the students have met the standards?

- Mass Audubon Educator will observe students making careful observations and recording what they see.

- Recording sheets show examples of adaptations that students have observed.
- Recording sheets show that students are making educated guesses about what birds eat based on physical characteristics and behaviors.
- Students participate in discussions and Mass Audubon Educator prompted questions.

  Student uses what they have learned to create an imaginary bird with adaptations that help it survive in its habitat.

Summarizer

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

- Students will create an imaginary bird that has adaptations that help it survive in a habitat such as desert, forest, meadow, or pond.
- Students will choose a habitat and draw an imaginary bird that will be able to survive there. They should feel free to add physical characteristics or behaviors that do not exist in real life. For example, they might create a forest bird that has the ability to snap its tongue out and catch bugs from the air.

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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.

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.

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.