



**School Program Name:** Tracking  
**Name of Sanctuary:** Arcadia Wildlife Sanctuary  
**Grade Level:** 3-5  
**Location Options:** At sanctuary  
**Time:** 2 hours  
**For more info:** [arcadia@massaudubon.org](mailto:arcadia@massaudubon.org) or  
413-584-3009

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### Program Description

Students will act as detectives on the trails, looking for clues, or evidence, that animals are active.

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### 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).
- 3-5 Life Science #9: Recognize plant behaviors, such as the way seedlings' stems grow toward light and their roots grow downward in response to gravity. Recognize that many plants and animals can survive harsh environments because of seasonal behaviors, e.g., in winter, some trees shed leaves, some animals hibernate, and other animals migrate.



### Massachusetts Curriculum Frameworks

<b>Framework:</b>	English Language Arts
<b>Strand:</b>	Language
<b>Topic:</b>	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.

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### Massachusetts Curriculum Frameworks

<b>Framework:</b>	English Language Arts
<b>Strand:</b>	Composition
<b>Topic:</b>	Writing

### Learning Standards

#### Writing

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

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### Massachusetts Curriculum Frameworks

<b>Framework:</b>	Arts
<b>Strand:</b>	Visual Arts
<b>Topic:</b>	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.

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### 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 winter animal and how they help animals survive in winter.
- Explain the clues we can use to find out how animals meet their needs in winter.



### Vocabulary

adaptation	habitat	scat
clue	hibernation	shelter
dormancy	migration	tracks
evidence	print	winter survival

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### 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.
- Students will record evidence of active animals meeting their needs in winter habitat.
- Students participate in discussions and Mass Audubon Educator-prompted questions.
- Students will create an animal with adaptations to help it survive winter.

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### Summarizer

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

Students will create an imaginary animal that has adaptations that help it survive in the winter. Students will draw and write about the animal, adding physical characteristics or behaviors that do not exist in real life. For example, they might create an animal that has heat pockets in its fur.



## 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.

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## 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.

