



**School Program Name:** Soil – the Decomposers  
**Name of Sanctuary:** Habitat Education Center & Wildlife Sanctuary  
**Grade Level:** Grades k-2  
**Location Options:** In the classroom  
**Time:** 1- 2 hours  
**For more info:** [mmiller@massaudubon.org](mailto:mmiller@massaudubon.org) or  
617-489-5050 ext 208

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### Program Description

In this customized in-school program, students find out more about soil and meet the decomposers – the organisms that transform dead leaves, logs and other organic matter into soil. Small animal visitors are part of this program. Hands-On, Interactive, small group, 3 station format

Can be adapted for grades 3-4

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### Massachusetts Curriculum Frameworks

**Framework:** Science and Technology  
**Strand:** Life Science  
**Topic:** Characteristics of Living Things

### Learning Standards

- PreK-2 Life Science #1: Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.
- PreK-2 Life Science #2: Differentiate between living and nonliving things. Group both living and nonliving things according to the characteristics that they share.
- PreK-2 Life Science #3: Recognize that plants and animals have life cycles, and that life cycles vary for different living things.

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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:

- See first hand variety of organisms who consume dead and decaying materials. Compare and contrast these organisms.
- Think about soil as an evolving or growing entity. Including the idea that plants and animals go through different lifecycles. Explain the connection that the tree that grows plays a part in the production of soil.



- Describe some of the decomposing organisms. Collect and examine specimens using bug boxes and hand lenses.

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## Vocabulary

Decomposition

Rot/ Decay

Invertebrate

Fungus

lifecycle

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## Assessments

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

- How does a tree help make soil?
- Which of the decomposing organisms do you think you could find in your neighborhood?
- What do decomposers need to survive?

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## Summarizer

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

- Students will describe the connection between a decomposer (sow bug, earthworm) and a tree. What roles do these organisms play in a cycle?



## 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.

