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| School Program Name: | Tree-mendous |
| Name of Sanctuary: | Moose Hill Wildlife Sanctuary |
| Grade Level: | Grades PreK-2 |
| Location Options: | At the sanctuary or your site |
| Time: | 2 hours or combine with a second program for a full-day field trip |
| For more info: | moosehilledu@massaudubon.org |

Program Description

While exploring the trails of Moose Hill children come to understand how a tree functions and changes with the seasons through observations and role-play. They will learn about conifers and broadleaf trees and identify some trees by leaf shape. When walking, students will observe the life cycle of trees from seedling to maturity to decay while we discover which animals rely on trees for their lives.

Significant savings are offered when you select a second program to create a full-day of hands-on learning at Moose Hill. This program combines well with Signs of the Season, Homes are Habitats, or Indian Pathways. Because of our large trail system and full-day option, we can serve up to 130 students for many programs. We provide a ratio of one Moose Hill teacher-naturalist to 12 to 14 students.

Massachusetts State Curriculum Frameworks

Subject: Science and Technology

Topic: Life Science

Learning Standards

Characteristics of Living Things

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 #3: Recognize that plants and animals have life cycles, and that life cycles vary for different living things.

Heredity

PreK-2 Life Science #4: Describe ways in which many plants and animals closely resemble their parents in observed appearance.

Living Things and Their Environment

PreK-2 Life Science #7: Recognize changes in appearance that animals and plants go through as the seasons change.

PreK-2 Life Science #8: Identify the ways in which an organism's habitat provides for its basic needs (plants require air, water, nutrients, and light; animals require food, water, air, and shelter).

Massachusetts State Curriculum Frameworks

Subject: Arts



Topic: Music

Learning Standards

Singing

PreK-12 Music #1: Students will sing, alone and with others, a varied repertoire of music.

Lesson Objectives

Students will know and be able to:

- Identify that trees use energy from the sun, nutrients and water to create sugar.
- Explain the life cycle of a tree from seedling, sapling, mature tree, snag (standing dead tree), log.
- Understand that not all trees are alike and a basic knowledge of how to classify trees into coniferous or deciduous.
- Identify the basic components of a tree – bark, trunk, roots, branches, buds, seeds, and leaves.

Vocabulary

| | | |
|----------------|------------------------|----------------------|
| Bark | roots | trunk |
| branches/twigs | buds | seeds |
| Leaves | coniferous/needle leaf | deciduous/broad leaf |
| Seedling | sapling | mature tree |
| Snag | ground cover | shrub layer |
| under-story | canopy | nutrients |
| decomposition | forest | |

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 layers of the forest, parts of the tree, and basic needs for plant growth.
- Students will participate in answering teacher prompted questions.
- Students will demonstrate their understanding of the tree life cycle by participating in a wrap-up activity.

Summarizer

How will the Mass Audubon educator close the lesson to see if students met your objective?

- Through imaginative play, students will act out the seasonal changes of trees.
- Students will dramatize the layers of a forest as well as the life cycle of a tree at the end of a program with instructor guidance.





- When shown an example of deciduous and coniferous tree students will be able to identify which category that tree belongs to.

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 when given enough notice.

