



Lesson Name: Water Pollution Activities
Name of Sanctuary: Broadmoor Wildlife Sanctuary
Grade Level: PreK-2
Location Options: At your school
Time: 45 minutes
For more info: broadmoorschool@massaudubon.org
508-655-2296 x7304

Program Description

Students will participate in a series of hands-on activities to understand water, as it is present in the natural environment. Students will explore an example of surface tension in action and they will be introduced to the concept of water pollution. After they are acquainted with several sources of water pollution, students will discover that there are ways they can help keep water in the environment clean.

Massachusetts State Curriculum Frameworks

Subject: Science and Technology
Topic: Physical Science
Sub-Topic: States of Matter

Learning Standards

PreK-2 Physical Science #2: Identify objects and materials as solid, liquid, or gas. Recognize that solids have a definite shape and that liquids and gases take the shape of their container.

Massachusetts State Curriculum Frameworks

Subject: Science and Technology
Topic: Earth and Space Science
Sub-Topic: Earth's Materials

Learning Standards

PreK-2 Earth Science #1: Recognize that water, rocks, soil, and living organisms are found on the earth's surface.



Massachusetts State Curriculum Frameworks

- Subject:** English Language Arts
Topic: Language
Sub-Topics: Questioning, Listening, and Contributing Writing

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.

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:

- Name three sources of water pollution
 - Describe at least three things they can do – or can encourage their families and friends to do – that will lead to cleaner water
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Vocabulary

Surface Tension

Pollution

Assessments

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

- Mass Audubon educator will observe students exploring and observing surface tension.
 - Students will participate in sharing observations and brainstorming.
 - Students will demonstrate their understanding by participating in a wrap-up activity.
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Summarizer

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

- Re-cap some key definitions and examples with the group.
 - Have students tell one thing they learned during the lesson.
 - Have students share favorite thing from lesson (usually, something they learned, but not always).
 - Your own way of wrapping up lesson.
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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.

