CINCINNATI ZOO & BOTANICAL GARDEN

Frisch's Outreach: Eastern Woodlands (1-3) Extensions

At a glance

This program will allow students to increase their understanding of the diversity of life and the human impact found in our eastern woodlands.

Goal

This program is designed so that the participants can discover the biodiversity found in the Eastern Woodlands

Objectives

1. Students will be able name 7 different animals that are found in the eastern woodlands.
2. Students will be able to identify what animals need to survive in the various habitats found in the eastern woodlands.
3. Students will know what threats face the eastern woodlands.

Theme

The abundance of biodiversity in the eastern woodlands has been greatly influence by human activity

Sub-themes

1. Habitats
2. Biodiversity
3. Human Impact

Academic standards

Ohio Science Academic Content Standards	*First Grade Standards* Life Sciences – 1,2,3,4 Scientific Inquiry – 1,2 *Second Grade Standards* Life Sciences – 1,2,3,6,7 Scientific Inquiry – 2,3,5,6 *Third Grade Standards* Life Sciences – 2,6
Kentucky Core Content—Science	*Grades Primary through 4* SC-E-3.1.2; SC-E-3.1.3; SC-E-3.3.2; SC-E-3.3.3
Indiana Science Standards	*First Grade Standards* The Nature of Science and Technology – 1.1.2; 1.1.3 The Living Environment – 1.4.3; 1.4.4 *Second Grade Standards* The Living Environment – 2.4.1; 2.4.2; 2.4.3

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Background

The eastern woodlands are the forests that cover the eastern United States. They stretch from the Atlantic coast to the Mississippi River, from southern Ontario south to central Florida. These are not fixed boundaries. The eastern forests gradually transition to other regions such as prairie to the west, boreal forests in the north and the subtropical regions of south Florida. Most of this area is dominated by the eastern deciduous forest. However in the higher elevations of the Appalachian Mountains and the Adirondacks the deciduous vegetation gives way to forests dominated by conifers.

Because this region is so vast there are many communities found within these woodlands that have there own characteristic flora and fauna. Some examples are: Oak Hickory, Beech Maple, Hardwood, Riverine, Pine Oak, Appalachian Cove, Prairie, Boreal and Alpine communities. These forests are some of the most diverse in the world with many types of plants and animals.

Diversity is very important to these forests because many of these depend on each other to maintain the delicate balance.

There are many threats to this forest. Because these woodlands lie in the region that was first settled by Europeans and has a very favorable climate, it has been greatly impacted by human activity. In the 19th century much of the land was cleared for agriculture and its natural resources. This region has also seen the growth of large urban and industrial areas that have produced significant amounts of pollution. Another problem facing this region is urban sprawl and the accompanying pollution and habitat loss.

Due to all of this human activity, much of the regions fauna has declined. Some species such as the passenger pigeon have become extinct and many others have seen their numbers decline. However some animals, such as the raccoon and Virginia opossum have been able to adapt to human activity and they are thriving.

Vocabulary

adaptation – a body part that an animal has or something it does to help it survive

behavior - something an animal does

biodiversity - biological diversity in an environment as indicated by numbers of different species of living things

habitat - the place or environment where a plant or animal lives

habitat loss - the loss of a habitat because of human activity

prairie - land that is predominantly grass

woodlands - land covered with woody vegetation

Extensions

Habitat Hike

Take a hike around the school or neighboring area and explore your habitat. Which habitat do you live in? What animals did you see? How did you decide which habitat is yours?

Go to a wildlife preserve and make a map of all the different habitats you see. How many did you find? Be sure to label the habitats. You can also make a

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map key including the different animals that live there. Look for signs of human activity. What impact did it have?

Meet a Tree

This activity can be done at school; at a park or have them do this at home.

Have each student find their own tree. Have them lay on the ground under the tree with their head towards the trunk. They should look up at the tree and study it from a different perspective. As they get to know their tree they can start looking for signs of animals. Have them look for a good spot for a nest or den. They can also try to imagine they are a squirrel and they can look for ways they can move around the tree.

After they lay under the tree for 5 to 10 minutes have them stand up and touch the tree. Walk around it and look where it is growing. Look at the branches. Have them answer the following questions. Where is it growing? What does the bark feel like? Are there any leaves, how are they shaped? Would this tree be a good place for an animal to find food or shelter?

Have them sketch or draw the tree. You can also have them write a story about the tree and what lives in it.

Resources

Activity guides:

Project Wild, Western Regional Environmental Education Council Inc. 1992

Books:

Kricher, John *A Field Guide to Eastern Forests*, Houghton Mifflin Company, 1998

websites:

ALA's Great Websites for Kids: Animals
http://www.ala.org/gwstemplate.cfm?section=greatwebsites&template=/cfapps/gws/displaysection.cfm&sec=1

Awesome Library – Kids
http://www.awesomelibrary.org/Classroom/Science/Animals/Animals.html
Awesome Library – Teachers
http://www.awesomelibrary.org/Classroom/Science/Animals/Animals.html

Cincinnati Zoo & Botanical Garden
www.cincinnatizoo.org

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