Neighborhood Wildlife: Ohio Live Animals (Grades 3 to 5)

DESCRIPTION

Live animal programs provide an up-close look at native Ohio species and provide an exciting and memorable learning experience. Each program is customized based on the grade level of your group. Students may investigate types of animals, adaptations, or animal roles within an ecosystem as part of the lesson.

Save time after your program to take your group outside to meet the rest of our animal ambassadors in the Ralph Perkins II Wildlife Center & Woods Garden - Presented by KeyBank.

OBJECTIVES

- Identify the similarities and differences in characteristics between 3 major animal groups: mammals, birds, and reptiles.
- Describe adaptations of each presented animal that help them thrive in their habitats.
- Compare and contrast the living requirements of wild and captive Ohio animals, and investigate how these animals interact within ecosystems.

OHIO'S LEARNING STANDARDS

GRADE 3

Life Science -- Behavior, Growth, and Changes

- Plants and animals have life cycles that are part of their adaptations for survival in their natural environments.
- Organisms' physical and behavioral traits affect their ability to survive and reproduce.
- Differences in inherited traits give some individuals an advantage in surviving and/or reproducing.

GRADE 4

Life Science -- Earth's Living History

- Suitable habitats depend upon a combination of biotic and abiotic factors.
- Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.
- Fossils can be compared to one another and to present-day organisms according to their similarities and differences.

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GRADE 5

Life Science -- Interactions within Ecosystems

- Organisms perform a variety of roles within an ecosystem.
- All of the processes that take place within organisms require energy.

Before your Program

If this will be your first trip to the Museum for some of your students, you may want to discuss the following questions:

- What is a Museum? Why are we going to the Cleveland Museum of Natural History?
- How should we handle objects at the Museum?
- Use the vocabulary and additional resources provided in this Teacher Guide to preview or review program content with your class.

VOCABULARY

abiotic – non-living parts of the environment (ex. rocks).

adaptation – A feature or behavior developed over generations that helps a plant or animal be suited to their habitat.

amphibian – a vertebrate animal with moist skin that produces eggs without a shell. Amphibians move between aquatic and terrestrial environments in their life cycle.

aquatic – living in the water.

biologist – a person who studies plant and animal life.

biotic – living components of an environment, relating to or resulting from living things.

birds (avian dinosaurs) – the direct descendants of two-legged, meat-eating dinosaurs. Birds have feathers, are warm-blooded and lay hard-shelled eggs.

camouflage – to blend in or look like the surrounding area.

carnivore – a primarily meat-eating animal. Carnivore teeth are all sharp and pointed.

consumer – an organism that feeds on plants or other animals for energy.

decomposer – an organism that breaks down organic materials (Fugus, Bacteria & Invertebrates).

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domestic – animals that depend on people for food and survival (dogs, cows).

ecosystem – an energy processing system involving the interactions of the living and non-living parts of the environment.

extinct – a species of plant or animal that no longer has living members.

feather – the outer covering of birds and some dinosaurs.

food chain – the transfer of energy by an organism consuming another.

fossil record – the history of life on our planet as documented by fossils (remains or imprints of organisms from earlier geologic time periods).

habitat – the natural home or environment of an animal, plant, or other organism.

herbivore – a primarily plant-eating animal. Herbivores have teeth that tend to be flat or rounded.

hibernation – deep winter sleep in which the animals live off stored fat and slows its metabolism.

invertebrates – animals without backbones.

mammal – a warm-blooded animal that has hair or fur, generally gives live birth and produces milk to feed its young.

marsupial – mammals that have a marsupium (pouch) for holding and nursing their young.

migration – periodic or seasonal travel of a group of animals from one area to another.

nocturnal – active at night.

omnivore – an animal that readily eats both plants and meat. Omnivores tend to have many different teeth with many different shapes.

producer – a living organism that makes its own food from sunlight, air or soil. The base of the trophic levels.

raptor – a bird of prey, such as a hawk or owl, that catches food with TALONS, the claws of raptors.

reptile – an animal that is cold-blooded (cannot produce its own heat), has scales, breathes air with lungs and generally lays eggs with soft or leathery shells.

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terrestrial – living on land.

trophic level – An organism's position within a food chain, with the lowest level being producers (like plants) and higher levels being consumers.

EXTENSION ACTIVITIES

1. Use the outdoor spaces available to you to bring attention to the world of nature outside your classroom. Take a nature walk and record your observations.
   a. Do this at different seasons of the year. Do you observe things that are similar? Different?
   b. Look for examples of the different ecosystem roles in a nearby natural area: producer, consumer, and decomposer.
   c. Look for examples of the different trophic levels as you explore. Which level has the highest representation? Which level has the least amount of representation?
   d. As you walk, look for evidence of human-environment interactions. What are those interactions, and would they be beneficial or harmful to the plants and animals living in/around those species?
2. Show photos of native Ohio animals and of non-native animals. Name and discuss the ones children are familiar with and introduce those they may not know. Encourage students to choose an unfamiliar native Ohio plant or animal to learn more about. What role does it serve in Ohio habitats/ecosystems? How have human actions influenced this organism's ability to survive and thrive?
3. Create a class safe list: Scientists often track the different plants and animals they see as they move through their day to document the variety of life where they are. Compile a life list of different species students observe around school and/or home. The list may include vertebrate and invertebrates. Take data such as the time of day it was observed, the habitat it was using, what behavior it was doing, the date visited, the temperature, the weather, etc. If possible, take pictures of the organisms students see & share those observations on iNaturalist.
4. Set up a bird feeder outdoors and observe the different birds or other animals using the feeder. Do some animals/birds dominate the feeder and chase others away? Are there different behaviors between males and females? Over a period of days try changing the type(s) of seed(s) or other foods (ex. sunflower seed, millet, or suet). Predict whether or not the same animals will use the food or different ones. Track the birds that you see visiting your feeders & submit your findings to eBird. You can also register your feeder

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with Cornell Lab of Ornithology's Project FeederWatch and participate in an international citizen science project.

5. Some wildlife may not be observed readily, but leave signs and clues that they were around. Explore tracks, fur, feathers, droppings, and places where the animals may have been feeding for clues as to what animals were around.
6. Draw or take photographs of the plants that are growing in the area that wildlife may have used. Are the plants bitten? Are there holes in leaves? Can you determine what type of animal was eating or using the plant material from the type of damage left behind? Share with students evidence of boring insects, galls, leaves that have been nibbled, etc. What clues do these pieces of evidence reveal about the animals living in this area?

ONLINE RESOURCES FOR TEACHERS AND STUDENTS

Click the link below to find additional online resources for teachers and students. These websites are recommended by our Museum Educators and provide additional content information and some fun, interactive activities to share with your class.

Wildlife | Cleveland Museum of Natural History

CMNH Educators regularly review these links for quality. Web addresses often change so please notify us if any links have issues.

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