Hoots & Howls: Perkins Wildlife Center Pre-Kindergarten to Grade 5

DESCRIPTION

Join us as we explore Ohio's Native Animals. Learn about the animals that live in our great state and meet some of our Perkins Wildlife Center Animal Ambassadors. Learn the serious business of animal enrichment and investigate the native habitats found in your own backyard!

OBJECTIVES

- Understand that all animals need food, water, and shelter to live
- Discuss the different ways that Ohio animals have adapted to specific habitats
- Identify common species that may be observed in different habitats throughout the state

OHIO'S LEARNING STANDARDS

Pre-Kindergarten

Science: Inquiry – Science Inquiry Application

- Make careful observations.
- Engage in simple investigations.
- Describe, compare, sort, classify and order.
- Identify patterns and relationships of animals in their environment.
- Make inferences, generalizations, and explanations based on evidence.
- Share findings, ideas, and explanations through a variety of methods (pictures, words, dramatization).

Science: Life Science – Explorations of the Natural World

- With modeling and support, develop understanding of the relationship between humans and nature; recognizing the difference between helpful and harmful actions towards the natural environment.

Science: Life Science – Observation of Living Things

- With modeling and support, identify and explore the relationship between living things and their environments.
- With modeling and support, demonstrate knowledge of body parts and bodily processes in humans and other animals.
- With modeling and support, recognize similarities and differences between people and other living things.

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Kindergarten

Science: Life Science – Physical and Behavioral Traits of Living Things

- Living things are different from non-living things.
- Living things have physical traits and behaviors, which influence their survival.

English: ELA – Speaking and Listening Standards

- SL.K.4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.

Mathematics – Measurement and Data

- KM.MD.1 Identify and describe measurable attributes (length, weight, and height) of a single object using vocabulary terms such as long/short, heavy/light, or tall/short.

Grade 1

Life Science -- Basic Needs of Living Things

- Living things have basic needs, which are met by obtaining materials from the physical environment.
- Living things survive only in environments that meet their needs.

GRADE 2

Life Science -- Interactions within Habitats

- Living things cause changes on Earth.
- All organisms alive today result from their ancestors, some of which may be extinct. Not all kinds of organisms that lived in the past are represented by living organisms today.

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

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similarities and differences.

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

adaptation – A feature or behavior developed over generations that helps a plant or animal get their basic needs.

basic needs – What every living thing needs to survive, that they *could not* survive without (i.e., food, water, and shelter).

biologist – a person who studies plant and animal life.

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

carnivore – a primarily meat-eating animal.

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.

enrichment – activities for captive animals that engage their brains and bodies in ways like how they would behave in the wild.

feather – the outer covering of birds and some dinosaurs.

habitat – The natural home of an animal or plant.

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herbivore – a primarily plant-eating animal.

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

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

native habitat – Where a plant or animal is naturally found.

nocturnal – active at night.

observation – The action or process of looking at something or someone carefully to gain information.

omnivore – an animal that eats both plants and meat.

organism – Any living thing.

predator - an animal that hunts and eats other animals.

prey - an animal that is hunted by another for food.

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

reptile - an animal that has scales, breathes air with lungs and generally lays eggs with soft or leathery shells.

shelter - something that an animal uses as its home to protect it from the elements.

wild – surviving with their own skills, instincts and experience.

EXTENSION ACTIVITIES

For PreK to 2nd Grade

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. Do this at different seasons of the year. Do you observe things that are similar? Different?
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.
3. Discuss the basic needs of these animals for food, shelter, and methods of protection.
4. Compile a list of different species they observe around school and/or home. The list may include vertebrates 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

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weather, etc. (teacher-led/recorded)

5. 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.
6. Some wildlife may not be observed readily, but leave signs and clues that they were around. Explore racks, fur, feathers, droppings, and places where they were feeding for clues as to what animals were around.
7. 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?

For grades 3-5

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.

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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 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.

Cleveland Museum of Natural History http://www.cmnh.org

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