

Animal Spot

Animal Spot uses intriguing specimens from Cincinnati Museum Center's collections to teach children how each animal is unique to its environment. Touch a cast of an elephant's skull, feel a real dinosaur fossil, finish a three-layer fish puzzle, observe live fish and use interactives to explore how animals move, "dress" and eat.

Case 1: Modes of Balance and Movement (Case design: horse legs in boots)

Animals walk, run, jump, fly, and/or slither to their destination. Animals use many different parts of their bodies to help them move. The animals in this case are:

- Blue Jay (*Cyanocitta cristata*)
- Grasshopper (*Shistocerca americana*)
- Locust (*Dissosteira carolina*)
- Broad-wing damselfly (Family: *Calopterygidae*)
- King Rail (*Rallus elegans*)
- Eastern Mole (*Scalopus aquaticus*)
- Brown trout (*Salmo trutta*)
- Gila monster (*Heloderma suspectum*)
- Damselfly (*Agriocnemis pygmaea*)
- Pufferfish (Family: *Tetraodontidae*)
- Bullfrog (*Rana catesbrana*)
- Cicada (Family: *Cicadidae*)
- Moths and Butterflies (Order: *Lepidoptera*)
- Sea slugs (Order: *Chepalaspidea*)
- Koala (*Phascolarctos cinereus*)
- Fox Squirrel (*Sciurus niger*)
- Giant Millipede (Subspecies: *Lules*)

Case 2: Endo/Exoskeleton (Case design: Surrounded by bones)

There are many different kinds of skeletons; some inside the body and others outside. The animals with skeletons on the inside have endoskeletons. Those animals that have skeletons on the outside have exoskeletons.

Endoskeletons

- Hellbender salamander (Genus: *Cryptobranchus*)
- Python (Family: *Boidae*)
- Perch (Genus: *Perca*)
- Frog (Family: *Salientia*)
- Toucan (Family: *Ramphastidae*)
- Meadow vole (Subfamily: *Microtinae*)
- Gibbon (Species: *Hylobates*)
- Whale vertebrae (Order: *Cetacea*)
- Sea Urchin (Species: *Psammechinus*)

- Sand Dollars (*Mellita quiquies perforata*)

Exoskeletons

- Barnacles (Phylum: Arthropoda)
- Triton's Trumpet (*Charonia tritonis*)
- Horseshoe crab (Species: *limulus*)
- Sea Whip (Species: *alcyonarian*)
- Solitary coral (Class: Anthozoa)
- Sea Biscuit (*Clypeaster subdeprellus*)
- Glass Sponge (Class: Hexactinellida)
- Crinoid (Species: *stelerocrinus*)
- Coral (Species: *scolymsa*)

Case 3: What do Animals Use to Eat? (An open mouth of a hippo)

Every animal has the proper equipment to help them eat. Some use teeth to chomp their food, while others use talons to tear their food into small bits. Animals are classified into three categories, based on what they eat.

Carnivores are animals that eat meat:

- Great White Shark (*Caracharodon carchurios*)
- Starfish (Phylum: Echinodermata)
- Rattlesnake (Genus: *Crotalus*)
- Lion (*Panthero leo*)
- Sea Anemone (Phylum: Echinodermata)
- Pencil Urchin (*Diadema euchidaris*)
- Sponge (Phylum: Porifera)
- Stingray jaw (Class: Chondrichtyes)
- Perch (Genus: *Perca*)
- Norther Flicker (*Colaptes auratus*)
- Drum fish (Family: *Sciaenidae*)
- American alligator (*Alligator mississippiensis*)
- Broad-winged hawk (*Buteo platypterus*)

Herbivores are animals that eat plants:

- Sea fan (Phylum: Echinodermata)
- Moose (*Alces alces*)
- Gorilla (*Gorilla gorilla*)

Omnivores are animals that eat both plants and animals:

- Giant clam (*Tridacna gigas*)
- Chipmunk (*Tamias striatus*)

- Red-bellied Pitta (*Pitta erythrogaster*)

Case 4: Animal Protection (surrounded by a raincoat)

Animals will vary in the type of protection they have according to their environment. Fur, feathers, scales and skin are just a few forms of protection that animals use. The coverings are suited to how they move, how they get their food and how they avoid being killed by a predator. Their coverings will help them stay warm or cool depending on their environment. Some examples in this case are:

- Pencil Urchin (*Diadema Eucidaris*)
- Sea Urchin (Species: *psammechinus*)
- Pangolin (*Manis temminckii*)
- Raggiana Bird of Paradise (*Paradisaea raggiana*)
- Atlantic Puffin (*Fratercula artica*)
- Echidna (*Tachyalossus aculeatus*)
- Fluted giant clam (*Tridacna gigas*)
- Clouded Leopard (*Neofelis nebulos*)
- Impejan Pheasant (*Lophophorus impejanus*)
- Common Eastern Mud Turtle (*Kinosternon subrubrum*)
- Grey tree frog (*Hyla versicolor*)
- Bull snake (*Pituophis melanoleucus*)
- Horse conch (*Pleuroploca gigantean*)
- Sea mouse (Species: *Lovenia*)
- Leopard cowries (Species: *Cypraea*)
- Pipe Organ Coral (Species: *Tubiopora*)

There are six stations in Animal Spot that focus on similar themes as the cases.

Station 1: Animals in Motion

Sit in front of the cylinder with small rectangular slits, otherwise known as a zoetrope. Spin the cylinder and look through the slits. What are the animals doing? What do you think will happen if you spin it the other way?

Station 2: How Fast Does an Animal Go

Observe different tasks to determine which animal performs each task. Look at an animal track and determine in what direction and how fast the animal is going.

Station 3: Put an Animal Together

Complete the duck's skeleton. Which layer of the fish goes first? Complete the fish puzzle, starting with the organs, and then move to the skeleton and finally the skin. Take apart the puzzles when you are finished working with them.

Station 4: Tools Animals Use to Get Their Food

What types of food do animals need to survive? This station is geared to find and explore what tools animals use to get their food.

Station 5: See Through Animal Eyes/Up Close and Personal/Rubbing Table

This station gives the visitor an idea of how an animal would look with human eyes. The station also contains a rubbing table. Place papers used on both sides in the recycle bin and ask a staff to get more if necessary. A magnifying glass gives an up close view of some animals. These include:

- Giraffe fur (Giraffa camelopardalis)
- Cobra skin (Genus: Naja)
- Elephant Beetle (Order: Coleoptera)
- Piranha (Family: Serrasalminidae)
- Pond Turtle (Genus: Clemmys)
- Sponge (Phylum: Porifera)
- Parrot's wing (Family: Psittacidae)
- Scallop (Bivalve mollusk)
- Echinoderm (Phylum: Echinodermata)
- Crayfish (Order: Decapoda)
- Anthozoan Coral
- Rabbit fur (Family: Leporidae)

Station 6: Examine Up Close

This station contains a tortoise shell, an elephant skull, a clamshell, a dinosaur bone and the "Animal House" pig from the Big Pig Gig. You may touch the items, crawl under the turtle shell and sit in the giant clam. There are signs on the fence to "Animal House" that you can use to guide your way through some of the animals on the pig.

South Resource Lab

Inside the South Resource Lab, you can read books or magazine, explore computers and visit some of our animals, including our Black Rat Snake and Hissing Cockroaches from Madagascar.

Knowledge and Skill Development

- Cognitive
 - Recognize similarities of items in cases (themes)
 - Order of numbering-speed interactive
 - Recognize needs of living things
 - Identify and understand reasons for animal adaptations

- o Spatial Reasoning with puzzles
 - o Understand what makes an animal, an animal
 - o Literacy-reading labels
- Motor
 - o Spatial Reasoning with puzzles and rubbing table
 - o Manipulating puzzles and interactives
 - o Visual tracking
- Social-Emotional
 - o Recognize needs of living things

Curriculum Connections:

Ohio-Science:

- 3. The learner will discuss the basic needs of living things and describe the ways that organisms meet these needs.
- 6. The learner will choose a sense-extending device to gather information from observations of an object, event, or organism.

Ohio Fourth Grade Proficiency Outcomes-Science:

- 1. Create and/or use categories to organize a set of objects, organisms or phenomena.

Kentucky-Science:

- 1.10 Students organize information through development and use of classification rules and systems.
- 2.6 Students understand how living things and nonliving things change over time and the factors that influence the changes.

Classroom Connections:

Animals with endoskeletons and exoskeletons are represented in *Animal Spot*. Find examples of each in magazines or through research. Discuss similarities and differences. Visit *Animal spot* or review what you saw in the museum as a follow up activity.

Safety Tips:

Be sure your group is with you at all times. Find a staff member to help you locate lost students!