

FIELD TRIP ACTIVITY GUIDE

FOR MIDDLE ELEMENTARY: GRADES 2ND-3RD

THEME: CONNECTING WITH ANIMALS

The theme for this activity guide focuses on connecting with animals, as a way for young learners to build empathy and compassion for wildlife. Spending time with animals, observing their natural behaviors, discussing what emotions they may feel, and understanding them as a whole are all ways for children to make connections with animals. Henry Vilas Zoo recognizes empathy towards wildlife as an important building block for learning to take conservation action.

STANDARDS

Wisconsin Standards for Science (WSS) / Next Generation Science Standards (NGSS):

- LS1.A: Structure and Function
- LS1.B: Growth and Development of Organisms
- LS1.C: Organization for Matter and Energy Flow in Organisms
- LS2.A: Interdependent Relationships in Ecosystems
- LS2.D: Social Interactions and Group Behavior
- LS4.C: Adaption
- ESS2.C: The Roles of Water in Earth's Surface Processes

LEARNING OUTCOMES

Through participation in this field trip, students will be able to:

- Experience affective empathy towards animals
- Apply cognitive empathy towards animals
- Practice wildlife observation skills that increase chances of positive animal interaction

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HENRY VILAS ZOO®

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FIELD TRIP POINTERS

Go slow! Do not expect to cover the entire zoo during your field trip. Students will have a more memorable experience by lingering longer at fewer exhibits.

Look for the Docents! The zoo often has Docents stationed at various exhibits who can help expand your discussions and tell stories that help students develop empathy for animals. Check the Zoo's website for more guidelines and recommendations for a successful field trip:

<https://www.henryvilaszoo.gov/education/school-field-trip/>

HOW TO USE THIS ACTIVITY GUIDE

This field trip guide presents five age-appropriate activities that may be completed in any order. Teachers and chaperones are encouraged to use the guide as a reference throughout the field trip, while allowing student-directed learning to occur. Students in grades 2-3 are naturally curious. As they explore their environment, they begin to develop understandings of how the world works. By following their lead at the Zoo, you enable that important exploration process to occur. The icons on each page symbolize different best practices for developing empathy in children.

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**FRAMING
EMPATHY**



**INCREASE
KNOWLEDGE**



**ACTIVATING
IMAGINATION**



**MODELING
EMPATHY
BEHAVIORS**



**PRACTICING
BEHAVIORS**



**EXPERIENCE
ANIMALS
CLOSE UP**



ACTIVITY 1

AREA: BIG CATS
ANIMAL: AMUR TIGER



GUIDING QUESTION:

What makes a tiger feel lucky?

BACKGROUND:

Acknowledging an animal's experience, and allowing for questions about animal's perceived thoughts or feelings, can be used as launching points for a more engaged conversation that leads to empathy for the animal. Of course, we cannot know whether a tiger feels emotions the same way we do, but having students think about luck in the context of survival techniques can help them feel empathy towards this massive predator.

As the world's largest cats (males weigh up to 700 pounds; females up to 400 pounds), you would think that Amur tigers rule the forests where they live. However, even big animals can struggle to survive.

INSTRUCTIONS:

Look at the Wheel of Survival to see what challenges big cats face when hunting. Then have students take turns spinning the wheel to see how lucky a big cat they are. Ask them how they feel with their outcome. Would their big cat want to try again? If their big cat was unlucky with hunting, what else could they do that day that might make them feel lucky again? Engaging in dialogue that requires students to take the perspective of the animal helps them build empathy. Encourage students to talk about whether the tigers at the Zoo feel lucky around feeding time. Why or why not?



LITERARY LINK

"The eye of the tiger" has been used to describe intense focus and confidence, especially related to physical determination. The phrase "eye of the tiger" refers to the fierceness and strength of a tiger when it is hunting. Before a tiger attacks its prey, its ears turn forward, revealing spots on the back of each ear. These "eye spots" can indicate imminent attack.

ACTIVITY 2

AREA: PRIMATE HOUSE
ANIMAL: RING TAILED LEMURS OR
BLACK & WHITE RUFFED LEMURS



GUIDING QUESTION:
How do lemurs use body language?

BACKGROUND

By moving like an animal moves, young learners experience “kinesthetic empathy,” which helps them better understand an animal’s intentions and develop empathy for them. Just like kids, lemurs are nimble and expressive with their bodies, making this exhibit a good place for practicing kinesthetic empathy.

INSTRUCTIONS

Share some lemur facts, depending on the species that is on exhibit during your visit:

- Black and white ruffed lemurs often hang upside down from their tails.
- When ring-tailed lemur troops travel throughout their home range, they keep their tails raised in the air, like flags, to keep group members together. 

How does this group stay together during our field trip? (name tags, buddy system, etc.)

- Ring-tailed lemurs love to sunbathe and nap in “yoga positions,” like tucking the nose between the hind legs and curling the tail up over its back.

Then invite the students to try having a conversation upside down, and/or raise a “tail” in the air and travel in a group, and/or perform lemur yoga poses using the example here - or they can invent their own!

EXHIBIT ELEMENT

Want more lemur fun? The lemur leaf frogs at the Discovery Center and Herpetarium are unique amphibians because they can bask in the sun for extended periods of time without drying out. It is believed they are able to do this due to a pigment in their skin called pterorhodin, which reflects heat off the surface of their skin. Unlike the primates after which they are named, lemur leaf frogs don’t do much leaping. They move very slowly, walking hand over hand and rarely jump unless fleeing from danger.



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ACTIVITY 3

AREA: PENGUIN EXHIBIT
ANIMAL: AFRICAN PENGUIN



GUIDING QUESTION:

How do African penguins stay comfortable in the heat and in the cold?

BACKGROUND:

Providing opportunities for students to talk about an animal's experiences in comparison and contrast to their own helps them build empathy. Here we can compare and contrast how penguins and people stay comfortable in varying temperatures.

We usually think of penguins living on ice, but African penguins live on, and around, warm beaches! They spend most of their day swimming in the cooler waters, hunting fish. When in the water, a layer of blubber helps keep them warm. They also have waterproof feathers that prevent the cold water from directly touching their skin.

When on land, they can keep cool by panting, spreading their flippers, and moving into the shade. The pink markings you can see around their eyes are glands that help them regulate their body temperature. And their bare, featherless legs also help release heat.

INSTRUCTIONS:

Have students point to different articles of clothing they are wearing that regulate their body temperatures. For example, a winter coat helps trap in body heat to keep you warm, similar to the penguins' blubber. A pair of open-toed sandals helps release heat and cools your body, similar to the penguins' bare legs. Consider the color of clothing, as well. Dark colors absorb sunlight while light colors reflect it. Compare this to the coloration of a penguin and have students think about how the birds position themselves in relation to the sun if they are warm or cold.

Play a game where students react to you saying "warm" or "cold" by turning their bodies to either face the sun or away from the sun, mimicking what African penguins do to regulate their temperature.

HISTORY HIGHLIGHT

Near the Penguin Exhibit is an old stone fountain, part of the original zoo when it opened in 1911. Generations of families have passed by this historical feature at Henry Vilas Zoo.



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ACTIVITY 4

AREA: CHILDREN'S ZOO POLLINATOR GARDEN
ANIMAL: MONARCH BUTTERFLY



GUIDING QUESTION:

How is milkweed important throughout a monarch butterfly's life?

BACKGROUND:

It is important to provide opportunities for children to care for animals in ways that require accessing empathy. The Pollinator Garden showcases a simple way that kids can help monarch butterflies, by caring for plants that are essential to monarch caterpillars and to migrating adult butterflies.

INSTRUCTIONS:

Have the group stand still and be quiet for 30 seconds to look and listen for wildlife. Ask students: What animals can live here at the zoo that are not in enclosures?

Look around the Pollinator Garden to identify milkweed and other flowering plants. Milkweed is where monarchs lay their eggs, so that the baby caterpillars can feed on this important plant when they hatch. By feeding on the toxin-containing milkweed, monarchs become poisonous to predators. Ask students about their favorite foods and if they would be happy eating only that one food.

Nectar-producing flowers, including milkweed, provide energy for adult monarchs during their long migration. Every year, hundreds of millions of monarch butterflies migrate from the United States and Canada to Mexico (up to 2,500 miles) for the winter. Driving that far in a car would take about 36 hours. Can you imagine taking that trip? Could it be done without stopping or would you need to take breaks to eat, refuel the car and use the bathroom? As a butterfly making the trip, you can see why having waystations to feed and rest would be important, too!

In addition to the Pollinator Garden, Henry Vilas Zoo has a monarch waystation on the hill behind the Aviary. Encourage students to think about establishing a monarch waystation in an outdoor space near home or school.



The broad leaves and thick stem of milkweed are very robust and are covered with a thin, light-gray down. The plant is light green with purplish-pink flowers arranged in a rounded cluster

CAREER CALL OUT

Biologists at Henry Vilas Zoo partnered with scientists at the University of Kansas who organize the Monarch Watch program to create, conserve, and protect monarch butterfly habitats. MonarchWatch.org has resources for teachers, families, researchers, and hobbyists who want to get involved.



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ACTIVITY 5

AREA: DISCOVERY CENTER
TOPIC: WINGRA WATERSHED



GUIDING QUESTION:

How does water connect the animals in our watershed?

BACKGROUND:

Young learners can develop empathy not just for animals, but for entire ecosystems. The Wingra Watershed, where Henry Vilas Zoo is located, is an important ecosystem for many plant and wildlife species. Thinking about local rivers, lakes, and streams in terms of watersheds can help students feel more connected to their surroundings and to the animals that inhabit the same area.

INSTRUCTIONS:

Gather students around the Shaping Watersheds sandbox. Explain that blue indicates bodies of water, green indicates low elevations of land, and the color transitions from yellow to orange as the elevation increases. A computer sensor above the sandbox projects the colored lights indicating what is land and what is water. Let students experiment with designing their own landscapes. Waving a hand above the sandbox triggers a “storm,” showing how rain flows through the watershed.

Use the interactive model to help students visualize how what we do to water in one area impacts other parts of the watershed. Reinforce the idea that water connects all life. Discuss with students what animals would thrive in the ecosystem they designed. Think about the different ways animals rely on lakes, oceans, and watering holes.



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