

# DISCOVERY SAFARI

A Self-Guided Tour of the International Wildlife Museum  
Grades K-2

## Educators

This educators' guide provides you and your chaperones with inquiry-based questions to stimulate discussion among your students as you travel through the museum. These cross-curricular questions are based on the Arizona Academic Standards found on page 2 of this guide.

## Preparing for your Safari

This packet is intended to supplement the student discovery packet; however, it may also be used on its own.

1. Give a copy of this guide to each chaperone.
2. Give a copy of the Chaperone Guidelines to each chaperone.
3. Assign each chaperone to no more than 10 students. Using the educators' guide, the chaperones will be able to enhance the students' museum experience while assisting them in completing their Discovery Safari Field Guide. The chaperone can ask the questions to the group, wait for a response and then read the answer we've provided.
4. If using the student field guide, remember that the answers are found throughout the museum. Students may need to flip through it to complete one or two questions on each page as they enter each room in the museum. The four primary concepts throughout the museum are: adaptation, habitat, predator/prey and conservation.
5. Arrange a time when the chaperones will meet you as a class after completing the self-guided Discovery Safari tour. A tour through the museum takes a minimum of one hour.



# Arizona Academic Standards

Science	KINDERGARTEN	GRADE 1	GRADE 2
	SC00-S1C1-01, 02	SC01-S1C1-01, 02	SC02-S1C1-01
	SC00-S1C2-01, 02	SC01-S1C2-01, 02, 04	SC02-S1C2-01, 02
	SC00-S1C3-01, 02	SC01-S1C3-01	SC02-S1C2-04
	SC00-S1C4-01	SC01-S2C1-02	SC02-S1C3-01, 02, 04
	SC00-S2C1-02	SC01-S4C1-01, 02, 03	SC02-S2C1-01
	SC00-S4C1-01, 03	SC01-S4C3-01, 02, 03	SC02-S4C1-01
	SC00-S4C3-01, 02	SC01-S5C1-01	
	SC00-S5C1-01, 02	SC01-S6C1-04, 05	
	SC00-S5C1-02		

Language Arts	R00-S1C3-01, 03	R01-S1C3-01, 02, 03, 04, 05, 06, 07	R02-S1C3-01, 02, 03, 04, 05, 06, 07, 08, 09
	R00-S1C4-01, 03	R01-S1C4-01, 03, 04	R02-S1C4-01, 02, 03, 04, 05, 06, 07
	R00-S3C1-03	R01-S1C5-02	R02-S1C5-02, 03
	R00-S3C2-02	R01-S3C1-02, 03	R02-S1C6-03
	W00-S2C1-01, 02, 03	R01-S3C2-01	R02-S3C1-02, 03, 05
	W00-S2C4-01, 02	W01-S2C1-02	R02-S3C2-01
	W00-S2C6-01, 02, 03, 04, 05, 07, 08, 09	W01-S2C4-01, 02	W02-S2C4-01, 02
	W00-S3C1-02	W01-S2C6-01, 02, 04, 05, 06, 07, 09, 10	W02-S2C6-01, 06, 07, 08, 09, 10, 12
	W00-S3C2-01	W01-S3C1-02	W02-S3C1-02
	W00-S3C6-01	W01-S3C2-01, 02	W02-S3C2-01, 02
	LS-R2, R3, R4, R5	W01-S3C6-01	W02-S3C6-01
	VP-R1	LS-F1	LS-F1
		VP-F3, F4	VP-F3, F4

Social Studies	SS00-S2C2-01	SS01-S3C1-01	SS02-S4C2-03
	SS00-S3C1-01	SS01-S4C2-02	SS02-S4C5-01, 02
	SS00-S4C3	SS01-S4C3	
	SS00-S4C5-01, 02	SS01-S4C5-01, 02	

Visual Arts	S1C1-001, 101, 102
	S1C2-001, 002, 101, 102
	S1C3-001, 101
	S1C4-001, 101
	S1C5-001, 101, 102

# Discovery Safari Educator's Guide

## BACKGROUND INFORMATION

The International Wildlife Museum is a natural history museum. We do not condone the collecting of specimens specifically for display. Many of the animal specimens are from a 100-year-old collection on loan from the state of Arizona. Others have been donated by government agencies, wildlife rehabilitation centers, captive breeding farms, zoos, other museums and hunters. There are also some replicas.

**Are the animals in the museum real?** Yes, most of them are. The arthropods are carefully pinned to boards so their fragile wings and bodies are not damaged. Taxidermists make the other animals look life-like. They use actual animal skins, but artificial bodies, teeth and eyes. Some taxidermy mounts are completely formed from man-made materials. Exhibit staff create dioramas of their habitats to give you a sense of the animals as they are in the wild.

## INSECTS OF THE WORLD

Insects live on every continent and are the most numerous animals. For every human, there are 200 million insects living on the planet.

**How many body parts and legs does an insect have?**

- ❖ Three body parts and six legs.

**How many body parts and legs does a spider have?**

- ❖ Two body parts and eight legs

**How does an insect or arachnid protect itself from being eaten by predators?**

- ❖ Possible answers include: camouflage, spines, stingers with venom, poisonous, taste bad.

## INTRODUCTORY HALL

A lot can be learned about an animal by studying its bones and teeth, including its food habits and age. This touch area allows you to closely investigate skulls, horns, antlers and fur.

**What type of teeth do meat eaters (carnivores) have, flat or sharp? What type of teeth do plant eaters (herbivores) have, flat or sharp? What type of teeth do meat and plant eaters (omnivores) have, flat or sharp?**

- ❖ Carnivores have sharp teeth. Herbivores have flat teeth. Omnivores eat both flat and sharp.

**Horns are on animals like the rhino and antelope in Africa. They stay on the animal their whole life. What is horn made of?**

- ❖ Keratin; the same material as your hair and finger nails.

**Antlers are on animals like deer, moose and elk. Every year the animal sheds its antlers and then re-grows them. What are antlers made of?**

- ❖ Bone

## BIRDS

Birds have many unique characteristics. Comparing their various adaptations reveals many differences, but also many similarities.

**Name some characteristics of a bird.**

- ❖ Possible answers include: feathers, specialized beaks and feet, wings, large eyes, lay eggs, most can fly, hollow bones.

**Do all birds fly? Name the ones that don't.**

- ❖ Possible answers include: ostrich, penguin, kiwi, emu, kakapo, rheas and cassowaries

## **PREDATOR & PREY**

**Predators**, such as mountain lions and wolves, eat other animals. **Prey** animals, including pronghorn and quail, are eaten by other animals.

**What are some characteristics of a predator (an animal that hunts other animals)?**

- ❖ Sharp claws and teeth.
- ❖ Eyes facing forward allow them to judge depth and distance.
- ❖ Most cats are capable of short bursts of extreme speed, and have furry paws and retractable claws for sneaking up on their prey before attacking.
- ❖ Members of the dog family have an excellent sense of smell, can run for long distances without tiring and often hunt in packs.

**How do prey (animals being hunted) animals avoid being eaten by a predator?**

- ❖ Prey animals have eyes on the side of the head in order to see all around them.
- ❖ They often have large ears to increase their ability to hear an approaching predator.
- ❖ They may have horns or antlers to defend themselves.
- ❖ They may have hooves or large hind feet to run faster.

Predator/prey phrase: Eyes in the front, you like to hunt. Eyes on the side, you run and hide.

## **CONSERVATION**

Rhinoceros are one of the many species that are threatened or endangered worldwide. This is mainly due to habitat loss and poaching. There are two rhino species in Africa (White and Black) and three in Asia (India, Java and Sumatra). The white rhino is the only species of rhino not currently listed as endangered.

**What is rhino horn made of?**

- ❖ Keratin; the same material as your hair and finger nails.

**Why are rhinoceros poached (illegally hunted) for their horns?**

- ❖ The horns are used for medicinal purposes in Asia and ceremonial dagger handles in Yemen. Poaching has led to the decline of rhino populations worldwide.

## **McELROY HALL**

This room contains mammals from Africa, Europe, Asia and North America and is a comparative species gallery. The comparative species gallery allows you to compare and contrast animals of the same family as well as different families. Many of these mammals have horns or antlers. Compare the antelope, which have horns and live in Africa, to the deer that have antlers and live in North America, Europe and Asia.

**What is largest cat in the world?**

- ❖ Bengal tiger

## **SHEEP & GOAT MOUNTAIN**

Here is a 32-foot high mountain featuring goats and sheep from around the world. Those found in the desert are at the bottom, while those found at the top of the mountain are animals found at higher elevations around the world. You can tell the difference between the two by looking at their horns. Sheep horns curl in a spiral, growing back towards their face. Goat horns grow straight back, though they may twist.

Around this mountain, are dioramas of animals of Africa, Antarctica, Europe, and North America.

**What color is the arctic foxes' fur in the spring and summer time?**

- ❖ Brown

**How long in the aardvark's tongue?**

- ❖ 12 inches

## **ARIZONA BY NIGHT**

Arizona's state mammal, the Ring Tail, is just one of the many nocturnal animals of the Sonoran Desert. Usually, humans do not get to observe animals as they search for food and water and go about their nightly endeavors.

**What does the word nocturnal mean?**

- ❖ Nocturnal means to sleep in the day and be active at night.

**Name some other nocturnal animals.**

- ❖ Owls, coyotes, javelinas, deer, pack rats, skunks, foxes, rattlesnakes and bats.

## **BRINGING BACK WILDLIFE**

Arizona is home to numerous species of animals, many of which can only live in certain habitats. Unfortunately for the animals, people also enjoy living in these beautiful places. Habitat loss puts a strain on the animal populations, causing some to become endangered.

**What does the word endangered mean?**

- ❖ Endangered means in danger of not existing anymore.

**What happens if an animal is endangered and people do nothing?**

- ❖ They could become extinct.

## **PREHISTORIC MAMMALS**

The Woolly Mammoth and the Giant Irish Elk are two mammals that became extinct 10,000 to 11,000 years ago. They existed during a period called the Age of Mammals or Cenozoic.

**Why was the woolly mammoth so hairy?**

- ❖ The woolly mammoth lived during the ice age. It needed the hair to keep warm.

**What kind of food did the Woolly Mammoth eat?**

- ❖ Grasses and plants

# OPTIONAL POST-VISIT ACTIVITIES

- 1. World Safari in a Book** – Learn more about different animals and create your own book.  
Materials: markers, crayons, colored pencils, large sheets of construction paper, pencil & paper  
Procedure: Have each student select an animal from the museum and conduct research to learn more about it, such as its diet, habitat, life span, size, geographical location, predators, conservation status (endangered, stable, threatened), unique characteristics, etc. Then, have each student draw a picture of their animal. Assemble each student's work into a class picture book. Or, compile the animals into several books by habitat, geography, or other similar characteristics.  
Sharing/Grading: The finished product will be presented to the rest of the class. The students will be graded on their effort, presentation, satisfactory completion of each part of the procedure, and accuracy of the information regarding their particular animal. The books may also be shared with classroom of younger students.
  
- 2. Create Your Own Critter** – Design your own made-up, well adapted animal  
Materials: markers, crayons, colored pencils, large sheets of butcher paper, pencil & paper  
Procedure: Before drawing their animal, the students need to answer and record their responses to the following questions: Where will it live? What will it eat? How does it move? Based on the answers to these questions, the group will decide and record which adaptations are necessary for their animal to survive. Then, they will draw their made-up animal on the butcher paper, using the provided materials. Finally, the students will write a short report including the name of the animal, its habitat, and its lifestyle. They should also include the list of adaptations, reasons for each adaptation, and the advantages provided by the adaptations.  
Sharing/Grading: The finished product will be presented to the rest of the class. The students will be graded on their effort, presentation, satisfactory completion of each part of the procedure, and clarity and thoroughness of the report.
  
- 3. The Nose Knows** – Students will understand the importance of the sense of smell to animals.  
Materials: Cotton balls, different scents; examples: vanilla, lemon, orange, root beer, chocolate, cinnamon ,etc., canisters to put scented cotton balls in.  
Procedure: Soak each cotton ball in a different scent. Have each student sit in a circle. Pass each container around one at a time. After everyone has had the chance to smell the same container discuss what was in that container before passing the next scent around.  
Sharing/Grading: Discuss how animals are able to identify thousands of smells. Ask what would happen if a wild animal failed to recognize a particular odor, like a predator, or rotten food.

# SELF-GUIDED VISIT EVALUATION

Date of Tour \_\_\_\_\_

School (optional) \_\_\_\_\_

1. How did you learn about the International Wildlife Museum?  
Friend/Relative Newspaper Previous Visit Driving by Mailing Other \_\_\_\_\_
2. Did you have any problems scheduling a tour? YES NO  
If YES, please  
explain. \_\_\_\_\_
3. Did you have any problems with admissions? YES NO  
If YES, please explain. \_\_\_\_\_  
\_\_\_\_\_
4. Did you use the pre-visit information? YES NO  
If YES, what was most useful? \_\_\_\_\_  
\_\_\_\_\_
5. Was it helpful to have the Arizona Academic Standards? YES NO
6. Did the chaperones use the Discovery Safari packets? YES NO
7. Were the movie selections appropriate for your students? YES NO
8. How would you rate your field trip to the International Wildlife Museum?  
POOR OKAY GOOD GREAT
9. Would you consider scheduling another self-guided museum visit using the Discovery Safari packet?  
YES NO
10. What would have made your visit more educational or enjoyable?  
\_\_\_\_\_  
\_\_\_\_\_
11. Please add any specific suggestions regarding the Discovery Safari materials.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Thank you for helping us make the museum a better place. Please turn this form in to the Ticket Window or mail to: **International Wildlife Museum, ATTN: Education Department, 4800 W. Gates Pass Rd., Tucson, AZ 85745**

