



# INQUIRY GUIDE EARLY CHILDHOOD

The Birmingham Zoo  
*presents*

# ROGER DAY

STEAM-Based Learning  
with a Great Beat!

**OCT 12 & 13, APRIL 17 & 18,  
APRIL 24 & 25, AND MAY 1 & 2**

Performing at 10:30am and 11:45am

## A Day in the Life of a Zoo Keeper

This guide includes information you can use in your classroom as well as during your visit to the Zoo on the day of the Roger Day concert series, “A Day in the Life of a Zoo Keeper”.

Please visit [www.rogerday.com](http://www.rogerday.com) to learn more about his music, see lyrics to the songs and find activities for the classroom to further enhance your experience.

## AT THE ZOO

The Birmingham Zoo promotes an experiential and inquiry-based approach to exploring the Zoo. While it can be tempting to try and see everything, we suggest that you slow down and look at a few things carefully in order to provide a more enriching experience.

### **Tips for successful student engagement**

**OBSERVE** - Let the children take the lead in what they find interesting. Don't rush them off to the next exhibit/animal if they are still engaged in what they are currently observing. Observation is a critical life skill and we should encourage it.

**REFLECT** - It is important to talk to children about what they are experiencing. Ask questions to encourage descriptions about what they are seeing. This reflection helps to build understanding.

**QUESTION** - Encourage your children to express wonder and ask questions. Don't worry if you don't know the answer. The process of being curious is what is important. Work together to learn something new or ask more questions!

**DESCRIBE** - Ask your children to describe what they learned through observations and how they might find out more. Encourage the use of new vocabulary.



# BIRMINGHAM ZOO MAP

Schaeffer Eye Center Wildlife Stage where  
Roger Day will perform

## Front Entrance



# IT'S A NO, NO TO KISS A RHINO

**Location: Trails of Africa**

## GUIDE YOUR STUDENTS THINKING

Take a minute or two and observe the rhinos. Allow students to do this without asking questions for as long as possible. Once they have observed the animal, begin asking them the following:

- How many rhinos do you see?
- What are some things that you notice about them?
- Are they big or small? Can you compare them to another animal you are familiar with?
- What color are they? Are there different colors on the body or mostly the same color(s)? How do you think their color(s) might help them in their environment?
- What is the texture of the rhino's skin? Do you think it might be rough, smooth, wet, bumpy, or dry? Why do you think this might be?
- Look at their habitat. Describe what it looks like. Is it leafy and green, sandy and dull, wet or dry? Do you see water and/or trees? What else do you see in their habitat?
- Roger Day has a song called It's a No, No to Kiss a Rhino. Would it be a good idea to kiss a rhino? Why do you think it might not be a good idea to kiss a rhino?  
Rhinos do not see well so it is good to give them space! It is good to respect *all* wild animals and observe them from a distance.
- Show students the rhino carrying crate near the exhibit. Point out the hole in the top of the crate. How do you think this hole happened? Why? The hole and scrapes are from the rhino's horn while he was carried in the crate.

## BACKGROUND INFORMATION

The Birmingham Zoo has 3 White rhinos, 2 females and 1 male. Their names are Laptop, Ajabu, and Max. Ajabu is Laptop's daughter.

White rhinos are not actually white. They may have received their name as a mistranslation of the word "*wide*"; this is because they have a wide lip used to assist in eating the rough bushes and leaves in their environment.

They are the 2<sup>nd</sup> largest land mammal (the elephant is the largest) and can weigh up to 7,700 pounds. Their horns can grow up to 5 feet tall! That's taller than you!

Not all rhinos have 2 horns. Some, like the greater one-horned rhino has, you guessed it, one!

There are five species of rhino: white (Africa), black (Africa), Indian or greater one-horned (India), Sumatran (Asia) and Javan (Asia).

Rhino = nose, ceros = horn: nose-horn

# HICCUPOPOTAMUS

**Location: Trails of Africa (next to the rhinos)**

## GUIDE YOUR STUDENTS THINKING

Take a minute or two and observe the hippopotamus. Allow students to do this without asking questions for as long as possible. Once they have observed the animal, begin asking them the following:

**\*If the hippopotamus isn't visible, try asking questions from the signs at the exhibit.\***

- What words would you use to describe the hippopotamus? Is he big or small? Does he have long legs or short legs? A skinny body or a large barrel shaped body?
- What is the hippo doing right now? Is he eating? (If so,) What do you think he is eating?
- What do you think the hippo needs from the environment to live and grow?  
Animals need food, water, shelter, etc. The zoo keepers help give the animals at the Zoo all the things they need to survive.
- How much do you think he weighs? A lot or a little? How many of you do you think it would take to weigh as much as a hippo?
- How much food would you eat if you were as big as a hippo?

## BACKGROUND INFORMATION

The Birmingham Zoo has one male hippopotamus and his name is Tadpole.

Hippos are the 3rd largest land mammals, after the elephant and rhinoceros.

Hippos can eat a lot! Some eat an average of 40 pounds of food a day!

Hippos have short legs, a large mouth, and a barrel-shaped body. They can weigh up to about 4,000 pounds.

# MARSH MUD-ALLIGATORS

**Location: Alligator Swamp**

## GUIDE YOUR STUDENTS THINKING

Take a minute or two and observe the alligator habitat. Allow students to do this without asking questions for as long as possible. Once they have observed the animal, begin asking them the following:

**\*If the alligators aren't visible, try asking questions from the signs at the exhibit.\***

- What do you notice about the water in this area?  
It may appear green due to a thick layer of duckweed. Duckweed is a plant and is common in bodies of water that are swampy or in wetland areas. It may even provide extra camouflage (places to hide) for the alligators .
- How many alligators can you see? Why might they not be easy to see?
- Do you think the alligator can breathe underwater?  
No, they breathe air just like we do.
- Is an alligator smooth or rough? Bumpy or smooth?
- Do you see any "marsh mud" around? Are there any alligators in it?
- Do any of you like to play in the mud?
- What are some other animals we might find in the mud? (Frogs, snakes, insects)

## BACKGROUND INFORMATION

The Birmingham Zoo has 3 juvenile alligators in the exhibit. Their names are Sparkles, Lemmy, and Clyde.

They can live 30-35 years and get up to 14 feet long. That is as big as 25 of your tennis shoes lined up end to end!

The exhibit is fed by a natural spring, which provides the mud and water for the alligators.

Alligators are nocturnal (more active at night) and spend most of the day basking and warming up in the sun. They are reptiles, like snakes and lizards.

# HERE COMES MR. SNAKE

**Location: Reptile House**

## GUIDE YOUR STUDENTS THINKING

Take a minute or two and observe the snakes in the Reptile House. Specifically the Green anaconda. Allow students to do this without asking questions for as long as possible. Once they have observed the animal, begin asking them the following:

- What are some words you can think of to describe snakes? What makes you think that?
- How many snakes can you find in the Reptile House?

### **At the Anaconda Habitat**

- How long do you think the anaconda is?
- What colors do you see on the snake? Are there any colors around it that are similar to the snake?
- Where is it laying? Is it in the water or on the ground? Why might it be in that location?
- Is it long and straight or is it coiled up?
- Is the snake easy or difficult to see? What color could the snake be to make them easier to see?

## BACKGROUND INFORMATION

The anaconda at the Birmingham Zoo is a female named Rio.

The Green anaconda is the largest snake in the world, reaching a length of over 30 feet at times. That's almost as long as a school bus!

Snakes can be found both on land and in the water.

Snakes make good use of camouflage, allowing them to "hide" in their surroundings and catch prey (or avoid predators).

Snakes are very important to our environment and to humans. Because of their presence we are not overrun with small rodents near our living spaces.

# RUMBLE IN THE JUNGLE - AFRICAN ELEPHANT

**Location: Trails of Africa across from Safari Cafe**

## GUIDE YOUR STUDENTS THINKING

Take a minute or two and observe the elephants in their habitat. Allow students to do this without asking questions for as long as possible. Once they have observed the animal, begin asking them the following:

- How many elephants do you see?
- How many legs does one elephant have? How many do all three elephants have together? What if we took away one elephant?
- What do you notice about the elephants?

They're big, dusty/muddy, have big ears, long trunk, are gray or brown in color, They throw dust/mud on themselves as a "sunscreen"; they are a gray color underneath the dust.

They have big ears!

Their trunks can grow up to 7ft long; that's as tall as if one of your friends stood on your shoulders! It is used to suck up water, pick up things using two little "fingers" on the end (similar to thumb and forefinger for us), and for smelling.

- Look at their habitat. Describe what it looks like. Is it leafy and green, sandy and dull, wet or dry? Do you see water and/or trees? What else do you see in their habitat?  
The elephants at the Birmingham Zoo are not from the jungle. The Zoo has African elephants, which live in the savannas. Savannas are grasslands with shrubs and isolated trees. These areas are found between tropical rainforests and desert biomes.

## BACKGROUND INFORMATION

Elephants are considered the largest land mammal on Earth!

A pachyderm is a thick-skinned mammal. Elephants, rhinoceroses and hippopotamuses are all pachyderms. Pachy = thick, derm = skin: thick-skinned

The Birmingham Zoo has an all male bachelor herd of African elephants. Their names are Bulwagi, Callee and Ajani.

Bulwagi is the oldest at 36. He weighs ~13,000 pounds! When he was young he fell and broke one of his tusks. Veterinarians removed the entire tusk leaving him with one. His one remaining tusk has an infection and veterinary staff have removed a significant portion of that tusk as well.

Callee and Ajani are both 16 years old and weigh ~8,000 pounds!

Their tusks are actually modified incisors and they have 4 flat grinding molars, 2 on the top and 2 on the bottom.



# RUMBLE IN THE JUNGLE-TIGER

**Location:** Near predator building across from lion exhibit

## GUIDE YOUR STUDENTS THINKING

Take a minute or two and observe the tiger in his habitat. Allow students to do this without asking questions for as long as possible. Once they have observed the animal, begin asking them the following:

- How many tigers do you see?
- What do you notice about the tiger?  
He's big, orange and white with black stripes, sharp claws, long tail, has fur, etc.
- What characteristics do you think help the tiger to survive?  
Their stripes help them blend in with their habitat so they can hunt. Their claws and sharp teeth help them hold on to prey when they catch them. Their tails help them balance when they move around.
- How is the tiger the same or different from you?
- How is the tiger's habitat different from the elephant habitat? Colors? Smells? Number of trees?

## BACKGROUND INFORMATION

Tigers eat only meat (carnivores), not like us because we eat meat and plants (omnivores). Tigers walk on 4 legs, and we walk on 2. Both tigers and humans are mammals.

The Birmingham Zoo has one Malayan tiger and his name is Kumar. He is 18 years old.

Tigers live to be about 15 years old in the wild, but older (around 20 years) under human care.

Malayan tigers are found in the deep forest, swamps, and riverbeds of Asia and are one of the smallest, but also one of the fastest species of tiger.

Tigers are solitary animals that hunt at night.

They are powerful swimmers.

Kumar likes to roar, especially in the mornings when he hears the keepers coming to work.

# VULTURE VOMIT

**Location: Alabama Wilds in The Children's Zoo**

## GUIDE YOUR STUDENTS THINKING

Take a minute or two and observe the black vulture in his habitat. Allow students to do this without asking questions for as long as possible. Once they have observed the animal, begin asking them the following:

- Have you ever seen a vulture circling in the sky above you? Why do they do that?  
They are searching for food.
- What colors do you see on the vulture?
- Do they have large or small wings?
- What do you notice about their heads? Do they have feathers on their head area?
- What do you think about when you see this animal? What makes you think that? What is the animal doing that reminds you of that?
- Who do you think takes care of the black vulture? What do you think they do?  
The zoo keepers! They give him food, keep him safe, and make sure he's healthy

## BACKGROUND INFORMATION

The Birmingham Zoo has a male black vulture, and his name is Wakinyan. He came to us because a woman took eggs from a nest thinking they were ravens. When she realized they were not ravens the US Fish & Wildlife Service confiscated them and brought them to the Zoo after unsuccessfully trying to release them back into the wild.

Vultures are scavengers, mostly eating remains of other animals. They also have good eyesight, making it easier for them to see prey on the ground while they fly.

Black vultures are found throughout the Southern United States.

The bare skin on their neck helps prevent material from getting stuck on their feathers when they are eating.

# THE BEAR WHO SINGS

**Location: Alabama Wilds in The Children's Zoo**

## GUIDE YOUR STUDENTS THINKING

Take a minute or two and observe the black bears in their habitat. Allow students to do this without asking questions for as long as possible. Once they have observed the animal, begin asking them the following:

- How many bears do you see?
- What kind of environment do they appear to live in? Does it look similar to anything you may see around your own house? How is it different from the elephant exhibit?  
Bears live in some wooded areas in Alabama but they don't usually come near our homes. Make sure you don't feed any animals in the wild, or they may come too close!
- What do you notice about the covering? Is it furry or scaly? Do they have thick or thin fur? How do you think their fur helps them survive?
- What do you think bears like to eat?  
They like to eat leaves, nuts, berries and fish but they will eat most anything if given the opportunity. That is why it is important for us to be careful about what we leave outside in our backyards. Pet food and open garbage could be enticing for bears wandering around looking for food. We don't want bears in our backyards!
- Bears have 4 paws and claws on each of those paws. What do you think those claws help them do?  
Dig for food and climb! Bears are excellent climbers! You may see them climb one of the trees in their exhibit.

## BACKGROUND INFORMATION

The Birmingham Zoo has two black bears. Their names are Bety and Sassy, and they're sisters!

Bears eat nuts and berries, leaves, insect, and fish. Bears are omnivores, like us. This means they eat plants and meat.

Bears don't usually interact or come near people, but if they smell food they may come closer than they should.

These bears were orphaned in Montana. A woman, thinking she was being helpful, began feeding them at her house and the bears started associating people with food. Not good! So they needed to be relocated and the Birmingham Zoo is happy to have them!

## KEEP THE EXPERIENCE GOING IN THE CLASSROOM!

Listen to the songs that they heard at the Zoo on [www.rogerday.com](http://www.rogerday.com)

### GUIDE YOUR STUDENTS THINKING

What was your favorite memory of our trip to the Birmingham Zoo?

What new words did you learn on our visit?

Who gives animals what they need at the Zoo?

What were some ways that the Birmingham Zoo cared for their animals?

What are some things that people who work at the Zoo do?

What are the basic needs of animals?

How were the animals we visited the same or different from you?

What animal would you like to learn more about?

What questions do you still have? What are you curious about?

## THANK YOU!

We hope you enjoyed your experience at the Birmingham Zoo and look forward to seeing you on another adventure soon! Please contact us at 205-397-3877 or visit us at [www.birminghamzoo.com](http://www.birminghamzoo.com) and let us help you find new ways to engage your students in our 122 acre classroom!