



6th Grade EdZoocational Adventure Guide

Theme: Animal Adaptations – Behaviors

Grade level: 6th

DESE Standard: 6-LS1-4: Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

Overview: How an animal responds to stressors greatly affects their ability to survive. Stressors can include predators, weather, hunger, competition for breeding, illness, etc. Black bears of both sexes rub their scent on trees to secure their territory. They rub their shoulders, neck, and crown but may also claw and bite a tree. Neighboring black bears can smell the owner of the property and know not to enter. Migratory species travel to warmer climates to escape the winter cold, while other species sleep through it during hibernation. Males of numerous species often fight for the right to breed with females which ensures that the largest and/or fittest males reproduce.

Activity: Use the activity page to document the behaviors of the provided animal species. Allow students to describe how the animal is behaving. Students should write why the behavior is performed and what the benefits are of the behavior.

Activity Extension: This activity can also be applied to human behavior. Discussions could include how humans respond to fear, joy, anxiety, etc. How do these behaviors help humans to survive situations like natural disasters or even everyday human interactions? How might these behaviors change within different communities: friend groups, family, coworkers, etc.?

6th Grade Tour Guide

This self-guided tour takes your class along a path to exhibits with animals that have distinctive adaptive behaviors. This path does not cover the entirety of the Zoo but is meant to accentuate the lesson narrative.

- As you enter, head to the right.
- Remind students that calm, quiet guests see more animals. Loud noises send them into hiding, making them harder to find.
- **Elephants:** Babe and Zina will often participate in what we call an elephant sway. Asian elephants can weigh up to 12,000 pounds, putting a lot of pressure on their feet. The swaying motion helps shift their weight and become more comfortable while standing, especially if the elephant is geriatric.
- **Ringtails:** Our ringtails Austin and Amethyst are located next to the large Aldabra tortoises. They are cousins to raccoons. They can climb down trees headfirst by rotating their ankles 180° and release a musky scent when threatened, making them a tough meal to catch.
- **Servals:** Amiri and Louise use urine and feces for communication among other servals and to claim territory. They will often spray urine on trees and bushes, along with scraping urine and feces into the ground. Male servals tend to scent their territory more often than females.
- **Ostriches:** During the mating season, male ostriches perform a mating dance. This dance involves the male fluffing up his feathers and swaying his neck. Male ostriches will often continue their dances while getting down on their knees. His dance is to try and attract as many female ostriches as possible, while females will often play hard to get, but that doesn't stop him. He will continue his ritual until a female agrees to be paired with him.
- **Naked Mole Rats:** Naked mole rats are a matriarchal species. This means that the family group is run by a female, known as a queen. She harasses all the other females until they are so stressed that they cannot get pregnant. This ensures that the queen is the only female in the colony to produce offspring.
- **Alpacas:** Alpacas use spitting as a form of communication. They use this as a warning, keeping competitors away from their food. They will also spit as a defense mechanism, giving them time to escape. Females will also use spitting to let males know they're not interested. Alpacas tend to spit towards other alpacas more often than towards humans.
- **Hornbills:** Chaos and Anarchy exhibit a lot of pride in the items they find or catch. They parade many of these items in their mouth, from prey to enrichment items. There are many theories as to why they do this, from breeding rituals to simple attention seeking behavior.
- **Siamangs:** Crash and Sutura use their large inflatable throat sacs to create many types of vocalizations. The throat patches are gray to pink and can inflate to the size of grapefruit. These calls can often be heard up to two miles away and are used to claim territory as large as a 30-mile radius. Male and female paired siamangs will also duet with each other, creating their very own unique song.
- **Chimpanzees:** Chimpanzee troops are formed around a hierarchy, which is a system where there are individuals that are ranked due to status or authority. Chance, our alpha male, will often display his dominance among the family members. These displays consist of hooting, feet pounding, and gesturing.

Name: _____



Animal Behaviors

Instructions: Use this field journal to explore the ecology of the animal kingdom while on your visit to the Little Rock Zoo. In the *Reasons for the Behavior* column, write why the animals might be displaying certain behaviors.

Animal:	Behavior:	Reasons for the Behavior:
Siamangs 	vocalization	to communicate and define territory
Hornbills 	parading/showing off items with mouth	
Alpacas 	spitting	
Naked Mole Rats 	queen harrassing other members of the colony	
Ostriches 	courtship dance	
Ringtails 	scent marking with a musky scent	
Elephants 	swaying	
Chimpanzees 	hooting, feet pounding, gesturing	

Connection: Watch animals around your house or in your neighborhood - what behaviors do these animals do?