5th Grade - EdZoocational Adventure Guide

Theme: Habitat Check

Grade level: 5th

DESE Standard: 5-LS2-1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Overview: All living things have the same basic needs: food, water, air, space, and shelter. Zookeepers try to accommodate these needs for their animals and develop exhibits and enclosures accordingly. In a natural habitat, these needs would be met by the environment in which an animal lives. The sun grows plants. Some animals eat plants. Other animals eat those animals. And finally, dead material is broken down back into the soil. Even the flow of water follows an expected cycle of seasons within a natural environment. Zoos work very hard to mimic the habitat of the animals in their care. Exhibits include terrain and water features that are similar to the animal's natural environment. Zookeepers monitor the plants growing in the exhibit as well as keeping their water sources clean. The zookeepers become vital to the "artificial ecosystem" of each enclosure. Additionally, zookeepers also monitor the behavior of animals for mental wellbeing. They provide various activities, known as enrichment, to help mimic natural behaviors.

Activity: Students will choose an exhibit to evaluate, documenting the details of how the enclosure fulfills the needs of the animals living within it. Students can then document how the animal's natural habitat might fulfill these needs. Compare the exhibit habitat created within the zoo to the natural habitat of the animal. Students will document how the "artificial ecosystem" helps to remove or diminish threats the animal might experience within its natural ecosystem.

Activity Extension: See if students can make visual connections between exhibits from the same type of ecosystem or environment. What differences can be seen to accommodate various animals from the same ecosystem?

5th Grade Tour Guide

This self-guided tour takes your class along a path to various exhibits designed to meet specific animal needs. This path does not cover the entirety of the Zoo but is meant to accentuate the lesson narrative.

- As you enter, head toward the right.
- Remind students that calm, quiet guests see more animals. Loud noises send them into hiding, making them harder to find.
- **Dik-Dik:** These small antelopes have a body that has evolved for moisture retention, which means they can pull all their water through their food. They even pull moisture out of their own feces, having the driest feces on the planet! Dik-diks can do this to help survive in their arid environments in the wild. In our dik-dik habitat, it's the reason they have a smaller bowl of water since naturally they would pull water through other sources instead of just drinking.
- **Gibbons:** Our white-handed gibbons are an arboreal species who use brachiation for moving. Brachiation is movement in which the suspended body swings by the arms (hand over hand) from one place to another. When you look at their habitat, you will see opportunities for smooth brachiation and highly placed habitat structures to mimic how they would stay in the canopies of trees.
- **Peccaries:** Peccaries are found in semi-arid forests and savanna plains, which happen to be one of the hottest and driest regions of South America. This means the habitat around them would often be barren. Our peccary habitat uses features to mimic their natural environment, like small shrubs and trees planted throughout.
- **Lions:** In Africa, lions would consist of family units we call prides. Prides can be 3-40 individuals. The males protect the pride's territories while the females are the primary hunters and care for the cubs. Our male Amboseli, and two females, Saphira and Inara, form a pride.
- **Tigers:** Unlike African lions who live in family units, tigers are solitary animals. Solitary means they live alone. You may notice that our tigers are in two different habitats. In the wild, they would leave their mother after 18-24 months to claim their own territories.
- **Colobus and Guenons:** Our Angolan colobus monkeys and spot-nosed guenons share a habitat together here. In the wild, guenons are known for sharing patches of forests with colobus. Primates are a social group and in the wild they would often share spaces with other species. We mimic this here at the Zoo to enrich their social behaviors.
- **Elephants:** Our Asian elephants Babe and Zina are senior elephants with their ages into the 50s. To accommodate their senior living requirements, their habitat here at the zoo is flat surfaced to avoid any tripping hazards. You may notice piles of dirt and they play an important role too! Asian elephants will lay on their sides to take naps, so having these dirt piles gives the girls the ability to lay down, but they are able to comfortably get up without putting strain on their bodies.
- **Orangutans and Gorillas:** Our great ape families have different climbing structures based on their needs. Orangutans are primarily arboreal in the wild, which means they live in the trees. Their habitat here reflects the tall structures that allow them to climb and mimic behaviors they would have in the wild. Our gorilla structures are not nearly as high as the orangutans'. Gorillas are more terrestrial than arboreal, meaning they live more on the ground. Alice, Adelina, and Catherine often enjoy climbing and grooming on their climbing structure, unlike silverback Kivu who is mostly seen on the ground.

Name:

Animals and Their Habitats

Instructions: Use this field journal to explore the ecology of the animal kingdom while on your visit to the Little Rock Zoo. In the *Components* column, write any habitat features that may be present in natural and exhibit habitats.

Animal:	Natural Habitat:	Components of Exhibit Habitat:
Dik-diks 	savannas, shrublands, and woodlands	scattered trees and shrubs, with open areas, like a savanna habitat
Gibbons 	rainforests	
Peccaries 	forests, grasslands, deserts, and shrublands	
Lions 	grasslands, woodlands, and deserts	
Tigers 	rainforests, grasslands, savannas, and swamps	
Elephants 	grasslands, forests, and scrublands	
Gorillas 	rainforests, swamps, and marshes	
Orangutans 	rainforests	

Connection: What kinds of changes in a habitat might affect other species?