



5th Grade - EdZoocalational 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 the plants. Other animals eat these animals. And finally, dead material is broken down back into 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 animals 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 well being. Then 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 animal 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:** Peanut has a body that is evolved for moisture retention, which means he can pull all of his water through his food. He even pulls moisture out of his 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 Peanut's habitat, it's the reason for a small access of water since naturally they would pull water through other sources instead of just drinking.
- **Gibbons:** Paddy and her daughters Twila and Goblin are arboreal species who use brachiation for moving. Brachiation is movement in which the suspended body swings by the arms from one hold to another. When you look into their habitat, you will see opportunities for smooth brachiation and highly placed habitat 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 that to mimic their natural environment with small shrubs and trees planted throughout.
- **Lions:** In Africa, African Lions would consist of family units we call prides. Prides can consist of up to 3-40 individuals. The males protect the pride territories as the females are the primary hunters and cub rearing. Our male Amboselli, has two females (Saphira and Anira) to mimic their family uniting they would participate in the wild.
- **Tigers:** Unlike African Lions who live in family units, tigers are solitary animals. Solitary means to live alone. You may notice that Jaya and Asmara are in two different habitats. The only time Jaya and Asmara would be together are for breeding purposes. In the wild male tigers would have had no part in the child rearing process.
- **Colobus and Guenons:** Our Colobus and Guenons share a habitat together here. In the wild, Guenons are known for sharing patches of forests with Colobus. Primates are a social species and since in the wild they would often share spaces with other species, we can mimic this here to enrich their social behaviors.
- **Elephants:** Our asian elephants Sophie, Babe, and Zyna- are senior elephants with their ages into the 50s. To accommodate their senior living, their habitat here at the zoo is flat surfaced to avoid any tripping hazards. You may notice the 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 comfortably to 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 living in the trees. Their habitat here reflects the tall structures that allow Berani and her daughter Kasih, to climb and mimic behaviors they would in the wild. Gorilla structures are not nearly as high as our Orangutan neighbors. Gorillas are more terrestrial than arboreal, meaning more on the ground. Alice and Catherine often enjoy climbing and grooming on their climbing structure, unlike Keevu who is mostly seen on the ground.

Habitat Check

Animal: _____

Need	EXHIBIT HABITAT	NATURAL HABITAT	THREAT REMOVED
Food			
Water			
Shelter			
Air			
Space			
Enrichment			
Any other observations			

INSTRUCTIONS

Observe an animal exhibit of your choice. Note how the exhibit's keepers provide for the animal's needs. Then note how these needs might be met in their natural habitats. Finally, note what threat to the animal has been removed or diminished within the exhibit compared to their natural habitat.

QUESTIONS TO CONSIDER

Are there items or elements you can't see?
 How might Arkansas weather affect the exhibit or animal within it?
 What natural forces might impact the exhibit environment?
 What types of foods are provided that might be different from their natural habitat?

CONNECTIONS

Consider how you would need to change your own bedroom if you were another species.