

# Habitats and Adaptations

## 6-8 Onsite Activity

### Lesson Summary

Students explore behavioral adaptations by making observations of a Zoo animal and recording the animal's behavior.

### Objectives

Students will be able to keep a record of animal behaviors through observation

Students will be able to identify behavioral adaptations

Students will be able to infer the purposes of behavioral adaptations

### Essential Question

What is an adaptation and how do they help with survival?

### Materials

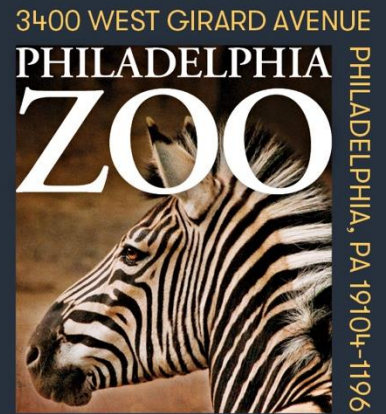
- Paper (or worksheet such as provided at the end of the lesson)
- Writing utensils

### Prep

1. 1 Week before: Look at the [Zoo map](#) to determine locations for observations
2. 1 Day before: Print out worksheets as needed (1 for each student)
3. 15 minutes before: Prep students for expectations

### Key Terms

- **Habitat:** the natural environment of an animal or plant, where that living thing can find their food, water, shelter, and space
- **Competition:** the process of trying to get something that others are also trying to get
- **Ecosystem:** a community of living things, together with their environment
- **Adaptation:** features that an organism has developed that helps them meet their basic needs, survive, and multiple in their habitat
- **Behavioral Adaptation:** inherited behaviors of an organism that helps the success of the animal, such as searching for food, mating, or vocalizing
- **Physical/Structural Adaptation:** physical features of an organism that helps the success of the animal, including shape, covering, or armament
- **Physiological/Functional Adaptation:** special functions within the animal that helps the success of the animal, such as regulating temperature or making venom
- **Basic Needs:** the absolute minimum resources necessary for long-term physical well-being and survival
- **Survival:** the ability to stay alive, especially through hard conditions
- **Predator:** an animal that hunts other animals for food
- **Prey:** an animal being hunted, caught, and eaten by another animal
- **Ethogram:** a catalog of different activities and behaviors observed in an animal



## Background

All animals require food, water, and shelter in order to survive. Where an animal finds these basic needs are within their habitat. There are many different habitats, and they are characterized by physical and biological features. For a population of animals living in the habitat, there is competition amongst the individuals for these needed resources available.

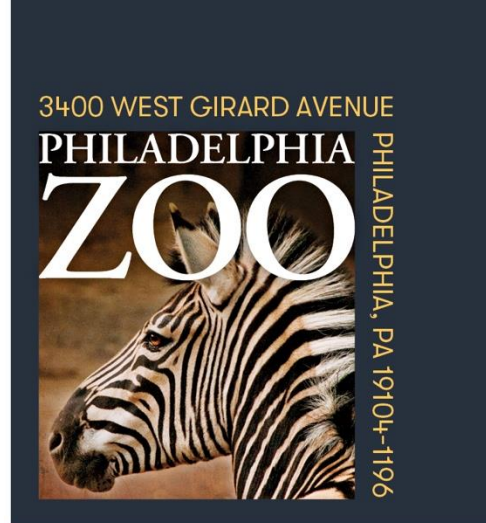
An adaptation is a trait that helps an organism survive and succeed in the habitat that they live in. They help the animal obtain its basic needs while. Adaptations can include physical traits and structures, like body color and wings, as well as behavioral traits, like migration. If an animal is relocated to a different kind of habitat, its adaptations would not necessarily be suited for survival, and could possibly cause harm to its success.

## Implementation

1. Excite: Welcome the students to the Zoo and ask them to share some animal behaviors that they find to be most interesting.
2. Explore: As you walk around the Zoo, verbally discuss some of the behaviors you and the students are noticing on the animals, and consider the purposes or reasoning behind these behaviors. How might these behaviors help the animals survive?
3. Explain: Remind students that all living things have adaptations, that help them to meet their basic needs and survive in their habitats. These adaptations can be features that the animals have, or can be behaviors that the animals exhibit.
4. Elaborate: Pick an animal at the Zoo to spend some extra time observing. Invite students to complete an ethogram, or recording of the animal's behaviors. First, students should spend a few minutes to list out every behavior they observe the animal doing. Then, students should record with tallies each time they notice the animal doing those behaviors listed.
5. Discuss which behaviors the animal was seen doing the most.
6. Then, ask students to consider why specifically the animal might do those behaviors, and if they might be a behavioral adaptation that helps them to survive in their habitat.
7. Evaluate: Ask students to share what additional things they may have learned about animal behavior and behavioral adaptations through their deeper observations.

## Curriculum References

3.1.6.A5, 3.1.6.C1, 3.1.7.C1, 3.1.8.C1, 3.1.7.C2, 4.1.7.A, 4.1.7.C, MS-LS2-2, MS-LS2-5, MS-LS1-4, MS-LS1-7, MS-LS2-1, MS-LS2-3, MS-LS2-4, MS-LS4-2, MS-LS4-4, MS-LS4-6



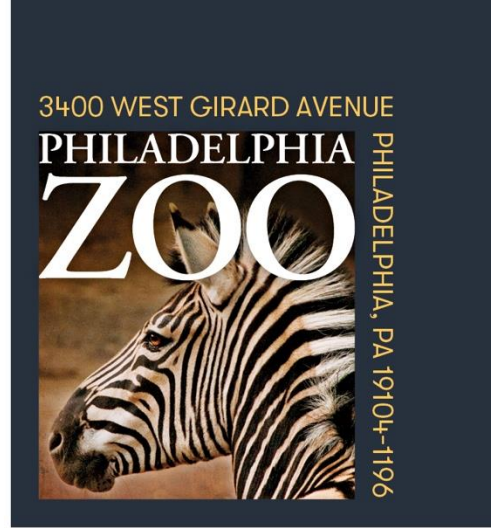
Name: \_\_\_\_\_

Teacher: \_\_\_\_\_


School: \_\_\_\_\_

Date: \_\_\_\_\_

Welcome to the Zoo! Animals have different adaptations that help them survive in the habitat they live in, which can also come in the form of behaviors. Select an animal to observe and make a list of all the behaviors you see them doing. Then, keep a tally each time you see the animal doing a behavior from the list created. Then, consider how each behavior would help the animal in its survival.



Animal observed: \_\_\_\_\_

Behavior	Number of times observed	Reasoning for behavior
Example: Swatting tail		Protection from pests and disease

