

Self-Guided Field Trip Teacher Guide

Animal Adaptations

This guide is designed to help you lead K-4 students through an engaging and educational exploration of Denver Zoo Conservation Alliance through the lens of animal adaptations. During your field trip, your students and chaperones will use this guide to discover how various animals have adapted to their environments to survive and thrive.

Objectives:

- **Observational Skills** - Students will practice their observational skills by noting the different characteristics of the head, body, and feet of different animals.
- **Making Inferences** – Students will infer how the different adaptations that they observed are useful in helping the animal survive.
- **Identifying connections** - Students will make connections between the adaptations of animals they see and other animals or objects.

Colorado Science Standards:

SC.1.2.1 All organisms have external parts that they use to perform daily functions.

SC.3.2.5 Sometimes differences in characteristics between individuals of the same species provide advantages in survival and reproduction.

SC.4.2.1 Organisms have both internal and external structures that serve various functions.

Background Vocabulary:

Characteristics – special qualities or features that help you tell animals apart	Adaptations – the characteristics an animal has to help it survive
Observation – something you learn by using your senses	Environment – all the living and non-living things in an area

Following this guide, your students will identify adaptations on an animal's head, body, and feet. There are prompts to help them first observe what they see on the animal, and then to make inferences or draw conclusions about how that adaptation is helpful for that animal.

Tips for Teachers:

- Prepare chaperones in advance to help them guide students through the prompts on the student exploration sheet.
- If students are too young to read and write, we suggest having the chaperone ask the questions out loud, and write the group's answers on a student exploration sheet.
- Encourage students to observe different types of animals for each section to give them a more in-depth understanding of adaptations and to see more of the zoo. You'll notice that the questions become progressively more specific, helping students refine their learning as they go.

Chaperone Guide

Welcome, Chaperones!

As you walk your students through the Zoo, be on the lookout for different, interesting animals. The students in your group will be observing animals and noting the physical features (or **adaptations**) these animals have, and discussing how they are useful to that animal.

Adaptations are special body parts or behaviors that animals have to help them live in their environment. Parts of an animal's body that help them survive are called physical, or *body adaptations*, and actions an animal takes to survive are called *behavior adaptations*. For example, a duck has webbed feet – this is a body adaptation. Some birds fly to warmer places in the winter – this is a behavior adaptation. You can often figure out what helps an animal survive by looking at how it acts and looks, and where it lives.

Tips:

- Allow students to decide where to explore.
- Encourage students to observe using their senses.
- Encourage students to ask questions and find answers on their own. Often, signs and keeper notes at each habitat have information you can use to help, if they need hints. However, it's more about practicing observations and drawing conclusions than finding all the right answers.
- Ask students open ended questions like these:
 - o What do you notice about this animal?
 - o How do you think that helps the animal survive?
 - o Why do you think that?

Note:

If the students in your group are too young to read and write, the teacher may ask you to read the students the questions and write their answers on the student exploration sheet.

Suggested Areas to Investigate:

To ensure students investigate a wide range of adaptations, we encourage you to visit different types of animals, such as mammals, reptiles, or birds. We have some suggested areas for you to explore to make sure you see lots of unique adaptations!

- Tropical Discovery – find reptiles, mammals, fish, and amphibians, all in one building!
- Toyota Elephant Passage and Village Hall – elephants, of course, and the Village Hall building across from the elephant habitat has playful otters, as other unique Asian species.
- Primate Panorama – In this area you will not only find monkeys and great apes, but you can also explore the Forest Aviary and Lorikeet Adventure for up-close looks at birds!

To find these locations on the latest map, visit denverzoo.org/map, download the Denver Zoo app, or visit the guest services kiosk to the right of the main entrance for a paper copy.



Student Exploration Sheet

Group Names: _____

Animal #1: _____	Animal #2: _____	Animal #3: _____
What do you notice about the animal's head?	What do you observe about the eyes, ears, and nose?	How do special features (ears, eyes, teeth) help the animal survive (find food, hide, eat)?
Describe the size and shape of the body.	What body covering do you notice on the animal (fur, feathers, scales)?	How does the size, shape, and covering of the animal's body help it survive?
What do you notice about the animal's feet?	Describe the animal's feet (claws, hooves, paws).	How do the feet help the animal survive (run, hunt, climb)?
How are these adaptations similar to other animals or things?	How are these adaptations similar to or different from the first animal that you saw?	Does this animal have any adaptations in common with the other two animals you observed?



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