



ACTIVITY BOOK
TEACHER GUIDE

3rd - 5th Grade



Purpose of Book

Trips to the Abilene Zoo are always a highlight for students in the Big Country and beyond. It is a day full of FUN! Our goal in creating the Activity Books is to help teachers fill and reinforce an educational component in addition to having a fun day at the zoo.

The materials in the book can be used in a variety of ways. It can be used as an introduction to concepts or as a reinforcement for lessons already taught in the classroom. Parts can be completed before, during and after the field trip. The book allows teachers freedom to decide how and when they would like to teach the subjects and bridges the gap in how the zoo can help in the learning process.

Below we have outlined suggested uses of the book. But it is just that: suggestions. Your students may be well above the concepts taught or may be barely learning the basics. Adjust what is asked and create projects and questions that fit your student's individual and group needs. Above all, create a connection between your students and the animals at the Abilene Zoo so that they want to share what they have learned with their family and friends.

TEKS Correlation

3: 112.14b: 1 A&B, 9 A, B&C, 10A (2019)

4: 112.15b: 1 A&B, 9 A&B (2019)

5: 112.16b: 9A & C (2019)

SUGGESTED LESSONS BEFORE

Adaptations Lesson

Objectives:

1. Explain two adaptations that allow an animal to survive in their habitat.
2. Define adaptations, both physical and behavioral.

Vocabulary:

- Adaptation: part of an animal's body or behavior that allows the animal to survive
- Physical adaptation: part of an animal's body that allows the animal to survive
 - Example: giraffe's long neck to help them reach tall leaves and also keep a look out for predators
- Behavioral adaptation: a behavior that allows the animal to survive better
 - Example: animals that migrate or hibernate to avoid weather extremes; prey animals living and moving in groups to avoid predation
- Camouflage: coloration that helps an animal blend in with its environment (type of physical adaptation)

SUGGESTED LESSONS BEFORE

Food Web Lesson

Objective:

1. Categorize an animal as a carnivore, herbivore or omnivore
2. Create a simple food web and analyze what happens if part of the food web is no longer there

Vocabulary:

- Carnivore: animal that eats meat (meat includes insects)
 - Animals at zoo: lions, cougars, jaguar, hawks, snakes, frogs/toads, owls, alligator
- Herbivore: animal that eats plants
 - Animals at zoo: tortoises, zebra, giraffe, rhino, sloth
- Omnivore: animal that eats plants and meat
 - Animals at zoo: maned wolf, tayra, primates, turtles
- Predator: animal that hunts
- Prey: animal that is hunted

SUGGESTED LESSONS BEFORE

Endangered Species Lesson

Objective

1. Define endangered and list two ways that animals may become endangered.
2. Identify 3 endangered species at the zoo and learn how we can help.

Vocabulary:

- Endangered: organisms that may soon not exist due to low numbers throughout the world; close to extinction
 - Animals at the zoo: black rhino, lemurs, East African crowned crane, Madagascar teal, whooping crane, addax, cotton-top tamarin, spider monkey, Panamanian golden frog, Egyptian tortoise, and more
- Extinct: organisms that have no living members

BEFORE YOUR ZOO TRIP

Some pages can be completed before visiting the zoo with additional questions that can be answered once at the zoo. Depending on time available, all pages can be completed at the zoo. Reviewing each page's directions may be helpful prior to the field trip to avoid confusing chaperones with questions.

Possible pages and questions that can be completed PRIOR to your visit:

Amazing Giraffe Adaptations

List three adaptations on the giraffe's body that help them survive in their habitat.

TIP: Can be completed prior to the zoo trip and serve as a review right after an adaptations lesson; giraffe can be observed during the trip to see how those adaptations are used and to help identify other adaptations that are easier to notice in person

Amazing Squirrel Monkey Adaptations

List three adaptations on their body that help them survive in their habitat.

TIP: Can be completed prior to the zoo trip and serve as a review right after an adaptations lesson; squirrel monkeys can be observed during the trip to see how those adaptations are used and to help identify other adaptations that are easier to notice in person

Amazing Owl Adaptations

List three adaptations on their body that help them survive in their habitat.

TIP: Can be completed prior to the zoo trip and serve as a review right after an adaptations lesson; owls can be observed during the trip to see how those adaptations are used and to help identify other adaptations that are easier to notice in person

Food Web

Draw arrows to show what each animal eats.

TIP: This is a great opportunity to cover predator/prey relationships. Discuss that animals eat more than one thing and may be both predator and prey. Talk about how animals may behave differently at the zoo if they are prey or predator in their habitat.

Camouflage

Can you find the frogs hidden in the image below? There are 10 total.

DURING ZOO TRIP

Reviewing each page's directions may be helpful prior to the field trip to avoid confusing chaperones with questions.

Possible pages and questions that can be completed DURING your visit:

Zoo Map

TIPS: Students can follow along on the map and circle animals as they find them in the zoo. Or they can help plan ahead of time which animals they want to see.

Amazing Giraffe, Squirrel Monkey & Owl Adaptations

Observe the animals (giraffe, squirrel monkey, owl) at the zoo (and list 3 adaptations on their body that help them live in their habitat).

TIPS: The adaptations might have been discussed and written down prior to the zoo trip, but observing and watching the animal in person may help students discover different adaptations that they hadn't noticed before. Slowing down even for 2-3 minutes just to observe is a great way to have students step into a scientist's shoes

Food Web

Which of these animals did you find at the zoo?

TIPS: This simple checklist will help students identify what part of the food web we may be missing at the zoo. Can they find an animal on exhibit that a snake would eat? What about insects for our insectivores? This can lead to a discussion of how our zoo keepers care for our animals.

DURING ZOO TRIP

Camouflage

What other animals in the reptile house at the zoo use camouflage to hide?

TIPS: If an animal is difficult to find students tend to speed past their enclosure. Have the students really search for those reptiles and amphibians that exhibit camouflage in the reptile house. They will see how specific those adaptations are. It's beyond color. They really do mimic their surroundings all the way down to the texture! It is also an opportunity to discuss how zoos design enclosures so that animals can blend into their habitat similar to in the wild.

Wildlife Warrior

While at the zoo, investigate why animals are endangered. Place a tally mark every time you read on a sign that an animal is endangered due to the following:

TIPS: Depending on the attention level and reading level of your students, this activity can be modified or skipped completely. This requires that students read the signs and be able to both identify if the animal is vulnerable/endangered, and read further to see if the sign says why the animal is endangered (not all signs provide a reason). A possible modification would be to write down 4-5 animals that are endangered and then do a class project after the trip to investigate why they are endangered.

Doodle Space

Draw your favorite animal that you saw at the zoo. What's their habitat? Label adaptations that help them survive in their habitat.

TIPS: This page is perfect for those students that tend to speed ahead with their work and need something to do while their classmates are still writing. For the students that are not comfortable drawing they can instead create lists of adaptations and elaborate in writing how certain animals survive.

AFTER ZOO TRIP

Take your learning beyond the zoo and back to your classroom with these suggested activities:

- Have your students complete a research project focused around an endangered species at the zoo. Look into why they are endangered, if it is human caused, and what we can do to help this species.
- Prepare flashcards with different animals and plants from a particular area (native Texas animals are always fun!). Start with the sun and have students arrange themselves so that they are pointing at whatever they eat. They might eat more than one thing. While they are still standing in their food web, have them raise their hands if they are omnivore, herbivore or carnivore, predator/prey etc. Provide scenarios where you remove parts of the food chain and discuss what happens to the predators.
- Play “hide and seek” with various classroom objects or plastic toys. Hide them near similar colored items or under larger items. Then hide something bright in plain sight. Discuss how animals use their camouflage coloration to survive and also why other animals have bright coloration (warning coloration if poisonous or venomous).