



Field Trip Lesson Plan: Adaptations Study at the Dallas World Aquarium

Goal: Students will observe many animals while at the Dallas World Aquarium and will identify adaptations that help those animals survive in their respective environments.

Objectives: Students will select and closely observe three different animals during the field trip to the Dallas World Aquarium.

Students will identify three adaptations for each of their three selected animals and accurately describe how the adaptations help those animals survive in their respective environments.

Science TEKS: 3rd Grade – 3.1.A, 3.1.E, 3.13.A

(1) Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- (A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
- (E) collect observations and measurements as evidence.

(13) Organisms and environments. The student knows that organisms undergo similar life processes and have structures that function to help them survive within their environments. The student is expected to:

- (A) explore and explain how external structures and functions of animals such as the neck of a giraffe or webbed feet on a duck enable them to survive in their environment.

4th Grade – 4.1.A, 4.1.E, 4.13.B

(1) Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- (A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
- (E) collect observations and measurements as evidence.

(13) Organisms and environments. The student knows that organisms undergo similar life processes and have structures that function to help them survive within their environments. The student is expected to:

- (B) differentiate between inherited and acquired physical traits of organisms.

5th Grade – 5.1.A, 5.1.E, 5.13.A

(1) Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- (A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
- (E) collect observations and measurements as evidence.

(13) Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environments. The student is expected to:

- (A) analyze the structures and functions of different species to identify how organisms survive in the same environment.

Materials:

- Animal Adaptations “Know, Want to know, Learned” (KWL) worksheet
- A Few of the Animals at the Dallas World Aquarium sheet
- Markers, colored pencils, or crayons
- Pencils or pens

Setup:

1. Make three copies of the Animal Adaptations Study Worksheet for each student.

2. Distribute the A Few of the Animals at the Dallas World Aquarium sheet to each student. Alternatively, you can share the sheet on your screen.

These are the animals shown:

- *American Flamingo*
- *Antillean Manatee*
- *Black-Footed Penguin*

- *Brown-Throated Three-Fingered Sloth*
- *Freshwater Sawfish*
- *Giant Anteater*
- *Green Anaconda*
- *Keel-Billed Toucan*
- *Orinoco Crocodile*
- *Weedy Seadragon*

Introduction/
Background:

1. Go over the A Few of the Animals at the Dallas World Aquarium sheet with the students. Explain that these are only a few of the many animals they will see on the field trip. Also explain that these are animals that are typically easy to spot while moving through the exhibits.
2. Distribute a copy of the Animal Adaptations Study Worksheet to each of the students. Explain that they will each select three of the animals on the board that interest them and that they are especially looking forward to seeing on the field trip.
3. Ask the students to write the name of the animals they selected in the column on the left of the worksheet.
4. Invite the students to think about the first animal they selected. Ask them to picture in their mind what that animal looks like, where it lives, and what it eats.
5. Using the allotted space in the “Adaptations I know this animal has” area, ask the students to describe the adaptations they already know that animal has.
6. Using the allotted space in the “A Question I have about this animal area, ask the students to think of something they would like to know about that animal.
7. Have the students repeat these two steps for each of their two remaining animals. Then collect the worksheets.
8. Explain that the students will be asked to pay special attention to their selected animals while on the field trip, particularly on the adaptations these animals have that allow them to survive in their respective environments.

Directions:

1. After arriving at the Dallas World Aquarium, remind the students to enjoy watching all the animals but to pay close attention to their three selected animals and the adaptations that these animals have.

2. Move through the exhibits. Point out the selected animals and allow students to share their observations. Point out other examples of adaptations and ask the kids to share their ideas as to how the adaptations benefit the animals.

Wrap-Up/ Discussion

1. Upon returning to school, redistribute the Animal Adaptations Study Worksheets. Ask the students to take time to think about and fill in the “Three adaptations I observed...” box for the first of their three selected animals. Also tell them to fill in the corresponding “How the three adaptations help this animal” box.
2. Ask the students to do the same for the other two animals on their list. Afterwards, collect the worksheets.
3. End the lesson with a discussion about the animals seen during the field trip. Ask the students to share their thoughts on the following questions:
 - *What was your favorite animal at the Dallas World Aquarium and why?*
 - *What was your favorite part of the field trip?*
 - *What was the coolest adaptation you saw while there?*
 - *Was there anything that you learned that surprised you?*

Assessment:

Comprehension of concepts will be evaluated based on observations of the students during the field trip, participation in discussions, and the accuracy of the adaptations listed for each of their selected animals (and how those adaptations help those animals) on the Animal Adaptations Study Worksheet.

Modifications:

- To limit the spread of germs (such as the COVID-19 virus), you could have the students wear masks while at the Dallas World Aquarium.
- For students with visual impairment, you could ask an assistant or chaperone to carry and present items for the student to touch that mimic the hair, skin, or feathers of animals like those found at the Dallas World Aquarium.
- For students with sensory sensitivities, you could reach out to the student or the student’s parent/guardian for tips to help the child with sensory overwhelm while on the field trip.

Extension
Activities:

1. “Who Lives at the Dallas World Aquarium?” crossword puzzle

This fun crossword puzzle is a great way to generate excitement for the upcoming field trip. It includes many of the different animals the students will see at the Dallas World Aquarium. *Crossword puzzle and answer key included.*

2. “This Word Search is For the Birds” word search

This word search highlights some of the many beautiful and unique birds found at the Dallas World Aquarium. It is a fun way to get the kids excited about what they will see on the field trip. *Word search and answer key included.*