



Field Trip Lesson Plan: Observing Adaptations 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 at least one adaptation for each of their three selected animals and accurately describe how the adaptations help those animals survive in their respective environments.

Science TEKS: Kindergarten - K.1.A, K.1.E

(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.

1st Grade - 1.1.A, 1.1.E

(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.

2nd Grade - 2.1.A, 2.1.E

(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.

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 KWL 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 three copies of the Animal Adaptations KWL 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 pick one of the three animals they selected. Ask them to write the name of that animal on the top of one of the three worksheets.
4. Invite the students to think about that animal. 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 “I know...” area of that animal box, ask the students to describe what they know about that animal. If they know of one, ask them to list one adaptation they know that animal has.
6. Next, ask the students to think about what they want to know about that animal. Ask them to list at least one question in the “I want to know...” area of that animal box.
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 special 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, start a discussion about what they learned. For each of the animals on the selected animals list, ask the students who selected that animal to share what they learned. Then ask them to describe what the animal looked like, what the habitat looked like, and share some of the adaptations that animal had.
2. Repeat this process for each animal on the selected animals list.
3. Redistribute the Animal Adaptations KWL Worksheets. Ask the students to take time to think about and write or describe at least one thing they learned about this animal in the “I learned... box. Also tell them to

describe at least one adaptation that help the animal to survive in its environment in the “I saw this adaptation” box.

4. Ask the students to do the same for the other two animals on their list. Afterwards, collect the worksheets.

5. 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?*
- *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 descriptions of the adaptation listed for each of the three animals observed by the student at the Dallas World Aquarium.

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 Activity:

1. “Can You Identify that Bird?” activity page

This matching activity pages allows students to think like animal observational scientists. Students learn about silhouettes and look at distinguishing features to match the bird to its corresponding silhouette. *Activity page included.*