

Post-Field Trip Lesson Plan: Saving Animals through Rescue Centers

Goal:

Students will explore the STEM career of wildlife rescue work by developing a plan for a hypothetical rescue center and will identify ways to help wildlife and our planet.

Objectives:

- 1. Students will work together as a class to create a proposal for a hypothetical rescue center for an animal selected by the class.
- 2. Students will identify ways in which humans can help wildlife to minimize the need for rescue centers and will select a conservation action to perform for the school year, sharing how their action will benefit the planet.

Science TEKS:

High School Aquatic Science/High School Biology - 1.B, 2.A, 3.B High School Aquatic Science - 4.C High School Biology - 4.C

- (1) Scientific and engineering practices. The student, for at least 40% of instructional time, 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:
 - (B) apply scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems.
- (2) Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - (A) identify advantages and limitations of models such as their size, scale, properties, and materials.
- (3) Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:

- (B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats.
- (4) Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - (C) research and explore resources such as museums, planetariums, observatories, libraries, professional organizations, private companies, online platforms, and mentors employed in a science, technology, engineering, and mathematics (STEM) field in order to investigate STEM careers. (Aquatic Science)
 - (C) research and explore resources such as museums, libraries, professional organizations, private companies, online platforms, and mentors employed in a science, technology, engineering, and mathematics (STEM) field in order to investigate STEM careers. (Biology)

Materials:

- Computer/tablet and Internet access for each student
- Paper and pencils/pens

<u>Introduction/</u> Background:

- 1. Explain that the Dallas World Aquarium supports a large number of animal conservation-focused organizations in Central and South America. This funding and staff support allows vast amounts of research, rescue, and species survival breeding efforts to occur.
- 2. Share that many of these organizations require a lot of dedicated staff and volunteers to operate. These people come from many different walks of life and bring valuable skills and experience to their respective roles within the organization.
- 3. Explain that these organizations form from a particular need in an area. One example is the Sloth Sanctuary of Costa Rica. Human activity on the Caribbean coast of Costa Rica has increased significantly in the past few decades. This resulted in quite a few animal rescue centers opening and rescuing orphaned and displaced wildlife in those areas.
- 4. Share that the Sloth Sanctuary started in 1992 with their first sloth rescue, a three-fingered sloth named Buttercup. Soon after, other orphaned and injured sloths arrived and the team cared for, rehabilitated, and released them back into the rainforest when possible. The Dallas World Aquarium began providing financial support and professional assistance to the Sloth Sanctuary in 2002.

5. Mention that running an animal rescue center requires a lot of people. Let the students know that they are going to research some of the rescue centers in the Conservation section on the Dallas World Aquarium website (www.dwazoo.com) and then create a proposal for a hypothetical rescue center for an animal to be selected by the class.

Directions:

- 1. Ask the class to share four ideas for an animal that their hypothetical rescue center will help. Write their ideas on the screen/board. Then ask the class to share four fictional ideas for why that animal needs to be helped. Write their ideas on the screen/board.
- 2. Have the class vote on an animal and a reason why that animal needs help. Then explain to the class that they will be breaking into groups, and that each group would develop a plan for a different aspect of the rescue center.
- 3. Explain that there are six main aspects that will be included in the rescue center proposal. They include funding, staff, volunteer program, education efforts, animal habitats, and a design for the layout of the rescue center.
- 4. Assign each student to one of the six groups. Before joining others in their group, have the students independently research animal rescue centers on the Dallas World Aquarium website and elsewhere. Ask them to take notes on their research, paying particular attention to their assigned aspect.
- 5. After completion of the background Internet search, ask the students to meet with their groups. Have them work together to develop their part of the proposal. Have one student type as the group dictates what should be included. Have the group decide how they will share their proposal with the class.

Wrap-Up/ Discussion

- 1. For each of the 6 parts of the rescue center proposal, ask the group to share their ideas and vision for their aspect of the rescue center.
- 2. Once all groups have presented, start a general discussion about the proposed rescue center. What are some of the strongest ideas for the rescue center? What other considerations should be made?
- 4. Remind the students that rescue centers exist because of a need. Their hypothetical rescue center resulted from a fictional need. Mention that rescue efforts are wonderful, but it is also important to determine why the animals are in danger and how we can help.

5. Ask the students to write two paragraphs to finish up the lesson. The first should describe ways humans can help wildlife to decrease the need for rescue centers. The second paragraph should describe a conservation action that the student pledges to do for the remainder of the school year, and how this action helps the planet.

Assessment:

Comprehension of concepts will be evaluated based on participation in lesson discussion, contributions to the hypothetical rescue center activity, and content of the summary paragraphs.

Modifications:

• For students with hearing impairment, you could have the groups to visually present their portions of the hypothetical rescue center proposal. Instead of presenting them orally, the groups could share their work online or on a poster to be displayed in the classroom.

Extension Activity:

The Importance of Rainforests activity

Students will recognize the importance of the rainforests through searching their homes for items that are made from rainforest products. As homework, the students will look for the items on the list and mark where they were seen in the home. Worksheet included.