

NGSS Unit Planning with UbD

Teacher Name: 4th Grade Team

Date: 2-3-16

School Site: Curran

Unit: Plant and Animal Structures and Survival- 2nd Module- Zoo Habitat

NGSS Covered:

LS1-1: Structure, Function, and Information Processing: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

LS1-2: Use a model to describe that animals receive different type of information through their senses, process the information in their brain, and respond to the information in different ways.

Crosscutting Concepts:

Systems and System Models: A system can be described in terms of its components and their interactions.

Disciplinary Core Idea: (DCI) LS1. A – Structure and Function: Plants and animals have both external and internal structures that serve various functions in growth, survival, behavior, and reproduction.

CCSS ELA Covered:

RI. 4.7: Reading: Informational Text: Interpret information presented visually, orally, or quantitatively (e.g. in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

RI. 4.9: Reading: Informational Text: Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

W.4.2: Writing: Text types and Purposes: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

W.4.6: Writing: Production and Distribution of Writing: With some guidance and support from adults, use technology, including the internet to produce and publish writing as well as to interact and collaborate with others, demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single setting.

W.4.7: Writing: Conduct short research projects that build knowledge through investigation of different aspects of a topic

W.4.8: Writing: Recall relevant information from experiences or gather relevant information from print and digital sources, take notes, paraphrase, and categorize information, and provide a list of sources.

SL. 4.1: Speaking and Listening: Engage effectively in a range of collaborative discussions (one on one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

SL. 4.2: Speaking and Listening: Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

SL. 4.3: Speaking and Listening: Identify the reasons and evidence a speaker or media source provides to support particular points.

SL. 4.4: Speaking and Listening: Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant descriptive details to support main ideas or themes, speak clearly at an understandable pace.

SL. 4.5: Speaking and Listening: Add audio recordings and visual displays to personations when appropriate to enhance the development of main ideas to themes.

Note: This module will take approximately 10-15 days

Understanding by Design NGSS Unit Plan

Stage 1: Desired Results

Understand

- The survival of living things is dependent upon their adaptations and ability to respond to natural changes in and human influences in their environment.

Essential Question(s)

- How do organisms survive in their environment?
- What are the similarities and differences in a zoo habitat and a real habitat?

Stage 2: Evidence/Assess

Know

Students will gain an understanding about how animals and plants use their structures to help them adapt and survive in their environment. They will also learn how those adaptations directly correlate to their habitat and/or environment.

Vocabulary:

habitat, environment, adaptation, structure, reproduction,

Do

Students will be taking on the role of a zoo keeper in charge of creating a new habitat for the local zoo. They will research the habitat they select and decide which animal or animals will go into that habitat. Then they will decide on how they would like to recreate this habitat to accommodate the animal(s) they selected keeping in mind the climate, terrain, plant life, and any particular items needed to recreate a habitat as it is in the wild.

Stage 3: Learning Plan

How

Engage: Start by having students view the video from Discovery Ed called “Enviro-Tackle Box: Module 02: Decision Based on Science- A Zoo View.” It is about 20 minutes. It talks about zoo habitats. Team students (3 to 4) and have them meet and write down and discuss the essential questions. These questions will be the overarching theme throughout this module. Have teams discuss the video and how that relates to the essential questions. They should be documenting this in their notebooks. Tell students that they will be taking on the role of a zoo keeper and their job is to create a new exhibit at the zoo. This exhibit requires them to create a new habitat for the zoo. They must recreate this habitat as closely as possible to the ones found in the wild.

Explore: Teams will then decide on a habitat to create for their zoo. Decide how you would like students to do this. Once they have selected the habitat they will then research all that would go into getting a habitat ready for the animals. Teams will have to research what type of plants and animals would live in their particular habitat. It also depends on the area of the planet this habitat occurs. Students will then have to research the adaptations the plants and

animals must have in order to survive in this habitat. They must also take into consideration the climate and how they would recreate the climate of their habitat. They need to know the location of their zoo in relation to the location the habitat is typically found.

Explain: Once the research has been done and students have their information organized they can go onto Discovery Ed and create a board. They will have to add their information to the board as well as add some form of media such as video clips and pictures. They have to follow the guidelines but can also be creative in creating their boards.

Elaborate: Zoo Panel: When the boards are done set up a Zoo Panel. A Zoo Panel will be between two teams. One team will be presenting their zoo habitat to the other team who will take on the role of the Zoo Panel. Their job will be to decide if they will accept the other team's proposal for the new habitat. The team presenting will have to show their Discovery Ed board to the other team and explain how the organisms in their habitat will survive. They will also have to explain what the similarities and differences are of their recreated habitat and the one in the wild. This directly relates back to the essential questions. Then the teams who were the Zoo Panel get to be the teams presenting and vice versa. Give teams time to discuss the essential questions and what they plan to say to the Zoo Panel. Each member of the team needs to have a speaking part in the presentation. Suggestion: This can be video taped by a member of the team and then made into an iMovie or can be used by the teacher for evaluation.

Evaluate: Teams will have a rubric to evaluate the other team's presentation. When the team is done with their presentation, the Zoo Panel will have time to collaborate and make a decision based off the rubric. Then the teams will meet back and the Zoo Panel will discuss the decision made to either accept the habitat or deny it and give their reasons why.

Stage 4: Transfer

Knowledge Transfer:

Having an understanding of the crosscutting concept systems and system models, will help students apply this understanding to the learning of plants and animals using their internal and external structures to help them adapt and survive. The Disciplinary Core Idea of structure and function also helps to bridge the learning of how plants and animals survive.