

WHAT ARE THE DIFFERENCES? TURTLE VERSUS TORTOISE

AN ELEMENTARY SCIENCE LESSON PLAN DESIGNED FOR STRUCTURED INQUIRY BASED ON THE 5E INQUIRY MODEL

Grade Level-1st grade. This lesson is designed for a 1st grade elementary classroom and will require 2 science periods or a blend of science, language arts and art/theatre.

Science Concept-This lesson is geared toward understanding that different animals live in different environments and have features that help them survive.

Relationship to California Science Content Standards

Life Sciences

2.□ Plants and animals meet their needs in different ways. As a basis for understanding this concept:

a.□ *Students know* different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.

For the purposes of this lesson, concentration will be on the animal portion of the standard.

Learning Objective

Students will create a turtle or tortoise sock puppet showing the different external features that help turtles and tortoises survive in different habitats.

Evaluation Ideas

1. Formative-Teacher helps/observes each group while they are working on the graphic organizer, during pair share time, class discussion and brainstorming.
2. Summative-Sock puppet

Conceptual Background:

The basic concept of this lesson is recognizing that animals have certain characteristics or features to help them thrive in different habitats.

In general, turtles live in or near the water and have adapted to swim by holding their breath underwater. Turtles tend to have webbed feet for swimming and the males often have long claws. When turtles are young, they will eat crabs and fish and are carnivores. As they mature, they become plant eaters or herbivores. The shell of a turtle is flat, smooth and oval, which allows for good swimming.

Tortoises live primarily in arid regions, built for storing their own water supply and walking on sandy ground. Tortoises live entirely above water, only wading into streams to clean themselves or to drink. In fact, they could drown in deep or swift current. Their feet are hard, scaly, and nubby so it can crawl across sharp rocks and sand. Tortoises often have claws to dig burrows, which they occupy during hot, sunny weather or during sleep. Tortoises are herbivores, eating cactus, shrubs, leaves, wood, bark, stems, fruit and flowers. They rarely migrate. Their shell forms a rounded dome, allowing the tortoise's limbs and head to withdraw for protection.

Lesson Implementation Plan: This lesson is designed as a structured inquiry with groups of three students.

Engage- Teacher will ask if anyone has seen a real turtle, what about a tortoise? What did they notice about them? Where did they see them? What were they doing? The teacher will read *Yertle the Turtle* by Dr. Seuss and/or *The Foolish Tortoise* by Richard Buckley. The teacher will ask the students if they are familiar with any other turtles or tortoises. The teacher can ask if anyone has heard of The Tortoise and the Hare, an Aesop fable. Teacher will say to the students, “Tortoises and turtles sure look the same and many people call a tortoise a turtle and a turtle a tortoise. I wonder, what are the differences between the tortoise and the turtle? Any ideas?” There will a brief brainstorm without confirming any statements, and then the students will break up into their assigned 3-student groups.

Explore-1-Each group will be allowed research time on the computer utilizing teacher-supplied websites focusing on external features and how those features help turtles/tortoises survive in different habitats.

<http://www.sandiegozoo.org/animalbytes/t-turtle.html>,

<http://octopus.gma.org/turtles/species.html>

http://www.defenders.org/wildlife_and_habitat/wildlife/desert_tortoise.php

2-Teacher will supply print outs of the research information from these websites.

3-Students will do a book walk, looking through the selected books on turtles and tortoises.

4-Teacher will go over word wall words. Teacher can select the timing of the word wall activity. Teacher can write them on wall with definitions and then go over them once all groups have done their computer research. Review words.

5- Each student group will pair share about what they think the external differences are between the 2 reptiles.

Books- *Franklin* book series, *All About Turtles* by Jim Arnosky, *The Foolish Tortoise* by Richard Buckley, DK Eye Witness Books, *Yertle the Turtle* by Dr. Seuss, *Wildlife of the World*, *The World Book-Student Discovery Encyclopedia*

Explain- Student groups will complete the graphic organizer, after/while doing their research. Using their knowledge from the GO, students will build a turtle or tortoise sock puppet showing the differences between tortoises and turtles (shell, legs, feet) that help them survive in their habitats. Teacher will assign each turtle and tortoise group.

The turtle/tortoise sock puppet can be made using a variety of materials: A green, black or a light brown sock is used for the body. Each egg space of a cardboard egg carton can be used for the shell of an infant tortoise. For a mature tortoise, a paper bowl, hot lunch container, or any dome shaped object can be used for the shell. For a turtle shell, use thin paper plates. You can cut and/or staple the paper plates to give them more shape, if desired. Have students decorate the “shells” with markers or crayons. Staple to the leg part of the sock. Use any objects for eyes: colored paper, sequins, sticker, etc. and attach with glue or stapler. Have precut-outs for the legs/feet, (different ones for the tortoise and the turtle), staple or glue on. Have pipe cleaners for claws, staple onto legs/feet. Have precut-outs of head and tail. Staple on. Time permitting, after the turtle/tortoise puppet is finished, student groups will perform a 2-minute skit talking about the physical differences between turtles and tortoises, including their habitat differences.

Elaborate- Students pair share with 5 other students about their sock puppet and it’s different features/habitats.

Teacher can elaborate on the same concept in a different context, such as polar bears and grizzly bears, eagles and hummingbirds, each one having different features and living in different habitats. Have a whole class discussion.

Evaluate-

Summative –Sock Puppet, showing external features

Formative- Observe graphic organizer, pair share time, class discussion, and brainstorming. Teacher will listen for different feature and habitats of the turtle/tortoise.

Differentiation Plans

Behavioral for Student A- Instructions are posted on the white board. Teacher models by saying out loud the instructions and self-talk.

Cognitive for Student B- Asking questions (what, where). Print outs of research info is provided.

Cognitive for Student C- There are 2 different graphic organizers, one with fill in the blanks or a scramble (A) and the other is writing complete sentences (B).

Affective for Student D- Internet, books, art project, skit (if time). An option instead of a sock puppet is making a stick puppet (use a tongue depressor).

Language Demands for Students E- Word wall

Language Demands for Student F- Books with different reading levels

Language Demands for Student G- Cloze sentences. Groups are assigned by teacher.

List of materials:

1-Green, black, or green socks or tongue depressors (see differentiation plans)

2-Egg carton or hot lunch containers

3-Thin paper plates

4-Sequins, paper or any object for eyes

5- Markers or crayons, glue, stapler

6-Pre cut-outs of legs/feet, head, tail

7-Pipecleaners

Worksheets attached