

Title of Lesson: Turtle, Tortoise, Terrapin?

Length of Lesson: 1 class period (50- 60 minutes)

Grade / Topic: 1st - 5th Grade / Basic Sea Turtle Biology & Ecology

Source of the Lesson: Gayle N Evans, Science Master Teacher, UFTeach, University of Florida



Appropriateness for Elementary School Students: In the elementary grades, students are introduced to the different types of organisms and the relationships they share with other species and their environment. Sea turtles are a charismatic group of reptiles with high interest to students. Sea Turtles are unique in that they are some of the only reptiles that spend the majority of their life in the oceans, only coming ashore to lay their eggs during the nesting season. Many people are easily confused by how to distinguish sea turtles from other types of turtles and tortoises. In this lesson, students will have an opportunity to interact with Dan Evans, a sea turtle scientist with the Sea Turtle Conservancy, to discuss the different species of Sea Turtles, their general biology, threats to their survival and what is being done to conserve these threatened and endangered species.

Concepts: There are five species of sea turtles discussed in this lesson: Green, Loggerhead, Leatherback, Hawksbill & Kemps Ridley. Each is distinguished from the others based on physical features, and behaviors. Sea turtles are very different from other turtles and tortoises because they primarily live in the ocean, only coming on land briefly to nest. They also have large, fin like legs and streamlined bodies that are perfectly adapted for swimming. All species of Sea Turtle found in the United States are listed as either Threatened or endangered. Some of the threats they face include loss of nesting habitat due to beachfront development and erosion, being accidentally caught in fishing lines, humans and other animal predators killing turtles and eggs for food, and ocean pollution. Conservation groups like the Sea Turtle Conservancy work with the US Government and the governments of other countries where sea turtles are found to help protect turtles and their habitats from all of these threats.

Florida State Standards (NGSSS) with Cognitive Complexity:

Benchmark Number	Benchmark Description	Cognitive Complexity
SC.2.L.16.1	Observe and describe major stages in the life cycles of plants and animals, including beans and butterflies.	Level 2: Basic Application of Skills & Concepts
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	Level 2: Basic Application of Skills & Concepts
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	Level 3: Strategic Thinking & Complex Reasoning
SC.4.L.16.4	Compare and contrast the major stages in the life cycles of Florida plants and animals, such as those that undergo incomplete and complete	Level 2: Basic Application of Skills & Concepts

	metamorphosis, and flowering and nonflowering seed-bearing plants.	
SC.4.E.6.5	Investigate how technology and tools help to extend the ability of humans to observe very small things and very large things.	Level 3: Strategic Thinking & Complex Reasoning

Performance Objectives *Students will be able to:*

- Differentiate sea turtle from other types of turtles and tortoises based on physical features and life history.
- List and describe the 5 species of sea turtles found in Florida.
- Discuss the threats to sea turtle survival.
- List and describe what they as individuals can do to help conserve Sea turtles.

Materials List and Student Handouts

- None required

Advance Preparations

- Contact Dan Evans at Sea Turtle Conservancy to arrange a date and time for the video conference. Please make arrangements at least two weeks in advance of the date of your conference request.

Safety

- There are no safety concerns associated with this lesson

5E Lesson - To be conducted via video conference by Dan Evans

Engagement:
Dan will start with a series of pictures of different types of turtles, tortoises & terrapins and ask, "What do all of these creatures have in common?" after a few minutes of discussion the next questions will be, "How are they all different?" and "Why are they different?"
Explanation:
Dan will present a lesson which highlights basic turtle biology, specifically discussing the 7 species of sea turtles - their habitats, diets and physical features. He will then discuss with the students all of the threats that sea turtles face and what is being done to protect these species.
Elaboration: some possibilities include...
Each student will be asked to choose one of the seven species of sea turtle and draw a scene (or make a collage, write a story, etc) depicting what they have learned about that species and what is being done to ensure it's long term survival.

As a class students will be divided into groups (one group per species of turtle) and, given the measurements of the dimensions of an actual turtle of that species, the group will draw a life sized outline of their turtle species and decorate it. These turtles can be hung around the school to raise awareness of sea turtles for the entire school.

Evaluation

Online quiz: <http://conserveturtles.org/seaturtleinformation.php?page=seaturtlequiz>

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