



Elementary School Sea Turtle Lesson Plan

Developed by Cathy Payne

Background: Elementary school-aged children are very drawn to stories, both fiction and non-fiction, about sea turtles, but there are limited resources geared towards the reading comprehension for students in grades 2 and 3. This short unit was developed to provide an opportunity for teachers of students in grades 2 and 3 to present a science lesson using informational text appropriate for Common Core ELA standards. The activities are designed as a brief unit over multiple days, but either of the reading activities can be done as a stand-alone lesson. There are numerous wonderful sea turtle education resources available online and a few websites and links to video clips are provided below. It is highly recommended that you download the *Educator's Guide* available for free on the Sea Turtle Conservancy website. The guide will provide additional information useful to answer the multitude of questions that the activities will likely generate from your students.

Intended audience: Elementary grades 2/3

Objective: After completing the three activities, students will be able to:

- Describe the basic life cycle of sea turtles in general.
- Explain how sea turtles are similar to other turtles.
- Make predictions about where hatchlings swim after entering the water.
- Explain that the ocean is warmer near the equator.
- Describe how sea turtles are tracked for scientific research utilizing technology.

Materials: Photocopies/prints of reading activities and sequencing images below

Activities: To introduce the unit, a KWL chart will be useful. Any student who has watched *Finding Nemo* will be familiar with Crush, the sea turtle. If your students live near the ocean or have visited marine theme parks or if they watch educational television, they may have some prior knowledge about sea turtles. If they have no prior knowledge, they most likely have firsthand knowledge of turtles, in general. Some common misconceptions about sea turtles: hatchlings swim the oceans with their mother or father (not true – they are on their own from day 1!) and any turtle that can swim is a sea turtle.

1. *The Sea Turtle* reading activity. After using a KWL chart to engage students, provide this activity as a basic introduction to sea turtles. Students may work independently, in small groups, or as a whole class group. After reading the activity, students should be able answer the items below the passage. Answers should be reviewed together as a class and recorded on the KWL chart. Special attention should be given to discussing the following terms/ideas as they relate to life science: GPS, adaptations in animals necessary for surviving in different habitats (flippers to swim, processing salt from the ocean, freshwater vs. saltwater).
2. *Life Cycle of the Sea Turtle* reading activity. Following the same procedure for *The Sea Turtle* passage, make additions to the existing KWL chart. Term to discuss: life cycle.
3. *Life Cycle of the Sea Turtle* sequencing activity. After completing the review of the reading activity, ask students to work either alone, in small groups or as a whole-class group to sequence the 4 images. Students will need to interpret what they are seeing, using such cues as the location of the water, orientation of the turtle, etc. Students should refer back to the text passage to assist with their sequencing.

Useful questions to ask:

- What is ocean water like? How is it different than freshwater?
- Where is the ocean likely to be warm?
- Have you heard the phrase GPS? What is it? Do you have it in your car?

Extension Activities:

- Using answers from their KWL chart and further exploration on the internet, create a 'Fun Facts' poster about sea turtles that can be used for your students to provide a lesson for pre-school through 1st grade students.
- Create a chapter book with all 7 sea turtle species
- Create a chapter book with multiple turtles being tracked as part of Tour de Turtles
- Adopt a Sea Turtle as a class
- Create a public service announcement or poster about how you can help sea turtles survive using information found on the useful links below

Useful links:

<http://www.tourdeturtles.org> The official website of Tour de Turtles. Track turtles fitted with satellite transmitters. Teacher tab has lessons and the Sea Turtle Conservancy Educator Guide. ***Educator's Guide location!!!!

<http://www.conserveturtles.org/educators> Sea Turtle Conservancy website. Educator's Corner has multiple activities available at no charge as well as ways to get involved in Sea Turtle Conservation. Lots of historical sea turtle tracking information in addition to turtles currently tracked for Tour de Turtles. Adopt Sea Turtle information. ***Educator's Guide location!!!!

<http://www.nmfs.noaa.gov/pr/education/turtles.htm> National Oceanic and Atmospheric Administration education website. Archive of downloadable *Turtle Times* newsletter for kids with information on sea turtle species in addition to other marine animal curricula.

<http://www.arkive.org> A wonderful resource for images of animals in the public domain. Good place to find high-resolution images of freshwater turtles and sea turtles of all 7 species.

<http://kids.nationalgeographic.com/kids/animals/creaturefeature/loggerhead/> Great video clips with sea turtles from National Geographic Kids.

Standards Covered:

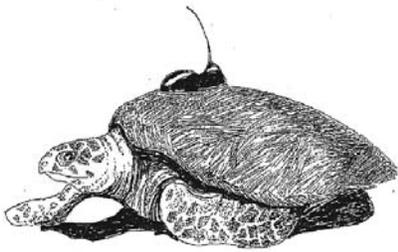
Common Core ELA Standards:

- ✓ CCSS.ELA-Literacy.RI.2.1 Ask and answer such questions as *who, what, where, when, why, and how* to demonstrate understanding of key details in a text.
- ✓ CCSS.ELA-Literacy.RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- ✓ CCSS.ELA-Literacy.RI.2.4 Determine the meaning of words and phrases in a text relevant to a *grade 2 topic or subject area*.
- ✓ CCSS.ELA-Literacy.RI.2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- ✓ CCSS.ELA-Literacy.RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- ✓ CCSS.ELA-Literacy.RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.
- ✓ CCSS.ELA-Literacy.RI.3.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*.
- ✓ CCSS.ELA-Literacy.RI.3.7 Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
- ✓ CCSS.ELA-Literacy.RI.3.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).

Next Generation Science Standards:

- 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.
- 3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in
Common birth, growth, reproduction, and death.
- 3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment
- 3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive
Well, some survive less well, and some cannot survive at all.
- 3-ESS2-2. Obtain and combine information to describe climates in different regions of the world.

This lesson plan was funded by a grant awarded from the Sea Turtle Grants Program. The Sea Turtle Grants Program is funded from proceeds from the sale of the Florida Sea Turtle License Plate. Learn more at <http://www.helpingseaturtles.org>



Name: _____

The Sea Turtle

Sea turtles are reptiles that live in the ocean. Most sea turtles like to swim in warm oceans. All sea turtles need to breathe air. They cannot breathe air under water, so they swim to the surface often to reach the air. Sea turtles are like land turtles and freshwater turtles, except most sea turtles are much bigger and they have flippers instead of legs. Some sea turtles are over 4 feet long and weigh over 600 pounds! Sea turtles have been on Earth for over 100 million years. They swam the oceans when dinosaurs walked on land!

Most sea turtles spend their whole lives in the ocean. They only leave the water to lay their eggs on warm beaches. They can live to be over 50 years old. There are 7 different types of sea turtles around the world. Different types of sea turtles eat different food. Favorite foods for sea turtles are sea grass, crabs, shrimp, and jellyfish.

Sea turtles all swim long distances in the ocean. Some of the turtles have a type of GPS on their top shell so humans can learn where the turtles swim in the ocean. Scientists use GPS to follow the turtles because humans cannot swim hundreds of miles like the turtles!

1. Can sea turtles breathe under water? _____
2. List 2 ways that sea turtles are different than land or freshwater turtles:
 - a. _____
 - b. _____
3. How many types of sea turtles are there? _____
4. What are some foods sea turtles eat? _____
5. Who puts GPS on the shell of some sea turtles? _____

The Sea Turtle **ANSWER KEY**

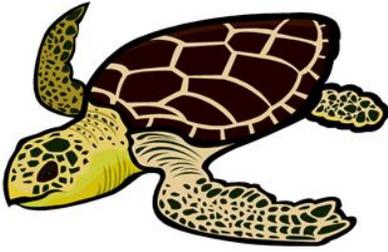
Sea turtles are reptiles that live in the ocean. Most sea turtles like to swim in warm oceans. All sea turtles need to breathe air. They cannot breathe air under water, so they swim to the surface often to reach the air. Sea turtles are like land turtles and freshwater turtles, except most sea turtles are much bigger and they have flippers instead of legs. Some sea turtles are over 4 feet long and weigh over 600 pounds! Sea turtles have been on Earth for over 100 million years. They swam the oceans when dinosaurs walked on land!

Most sea turtles spend their whole lives in the ocean. They only leave the water to lay their eggs on warm beaches. They can live to be over 50 years old. There are 7 different types of sea turtles around the world. Different types of sea turtles eat different food. Favorite foods for sea turtles are sea grass, crabs, shrimp, and jellyfish.

Sea turtles all swim long distances in the ocean. Some of the turtles have a type of GPS on their top shell so humans can learn where the turtles swim in the ocean. Scientists use GPS to follow the turtles because humans cannot swim hundreds of miles like the turtles!

1. Can sea turtles breathe under water? **No**
2. List 2 ways that sea turtles are different than land or freshwater turtles:
 - a. **Much larger than most land or freshwater turtles**
 - b. **Flippers instead of legs**
3. How many types of sea turtles are there? **7**
4. What are some foods sea turtles eat? **Sea grass, crabs, shrimp, jellyfish**
5. Who puts GPS on the shell of some sea turtles? **Scientists**

Name: _____



Life Cycle of the Sea Turtle

Sea turtles are reptiles that live in the ocean. When a sea turtle is old enough, it will swim hundreds of miles back to the same beach where it first hatched from an egg. At nighttime, the female turtle will crawl out of the water onto the beach. She will use her back flippers to dig a deep hole in the sand. The hole will be the nest for her eggs. She will lay her eggs in the hole. When all of her eggs are in the hole, she will cover them with sand to keep them safe. After her nest is covered she will crawl back to the ocean. After about 60 days, the hatchling turtles will climb from the nest and crawl to the ocean. Sea turtles will spend their whole lives in the ocean until they are ready to lay eggs. When they are 25 years old, they might swim back to the same beach to lay their eggs!

1. Where do sea turtles live? _____
2. Which sea turtles will leave the ocean to lay their eggs?
 - a. Males
 - b. females
3. Which flippers do the turtles use to dig the hole for the nest?
 - a. Front
 - b. Back
4. How many days does it take for the eggs to hatch? _____
5. Write 2 questions you have about sea turtles.
 1. _____
 2. _____

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1. Where do sea turtles live? **The ocean**
2. Which sea turtles will leave the ocean to lay their eggs?
 - a. Males
 - b. Females**
3. Which flippers do the turtles use to dig a hole for the nest?
 - a. Front
 - b. Back**
4. How many days does it take for the eggs to hatch? **About 60**
5. Write 2 questions you have about sea turtles. **Will vary**

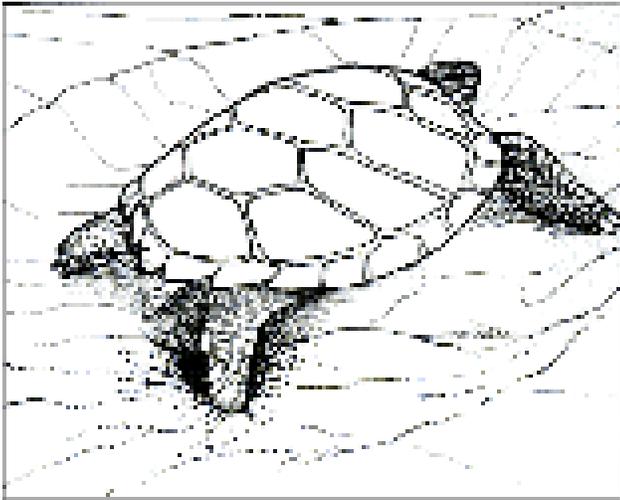
1. _____

2. _____

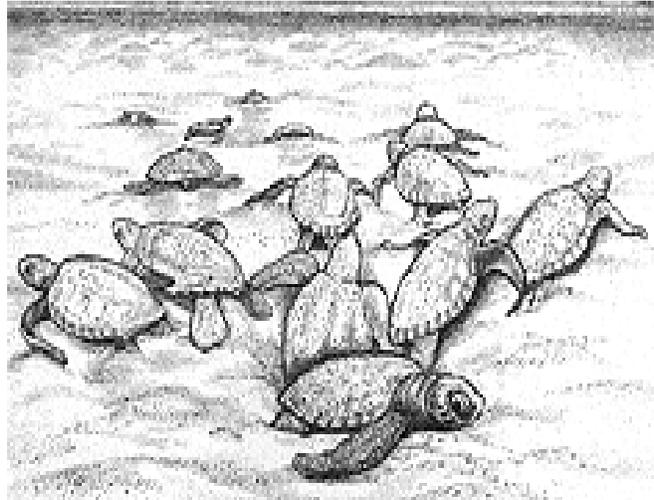
Sea Turtle Life Cycle Sequencing Activity: After completing and reviewing the *Life Cycle of the Sea Turtle* activity, ask students to sequence the images below in chronological order. Images can be printed and cut out or can be projected together as below.

Extensions:

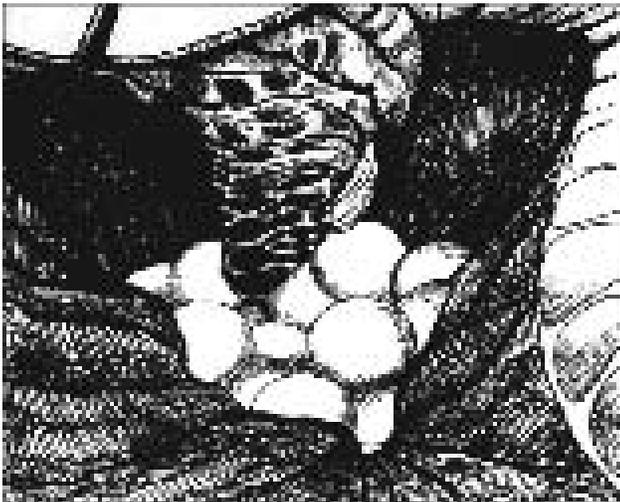
- Ask students if they can think of any steps to add.
- Students can write a short story predicting where the hatchlings might go once they reach the water.
- Students can create an artwork describing a step in the life cycle.
- Students can ‘read’ the images below by analyzing what they observe in each image.



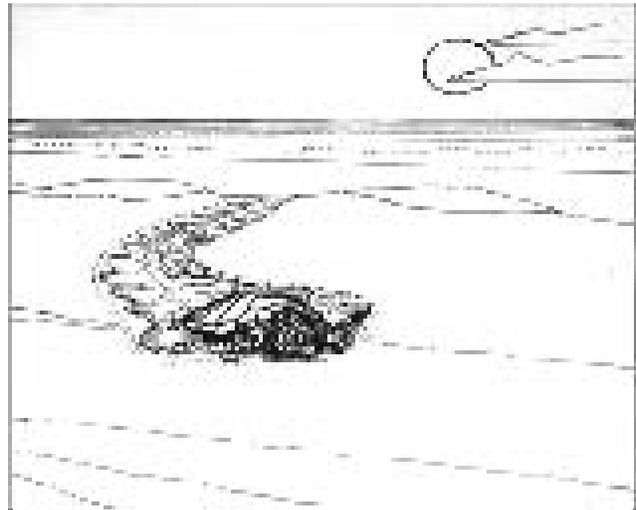
Sea Turtle Conservancy - *Educator's Guide*



Sea World Education



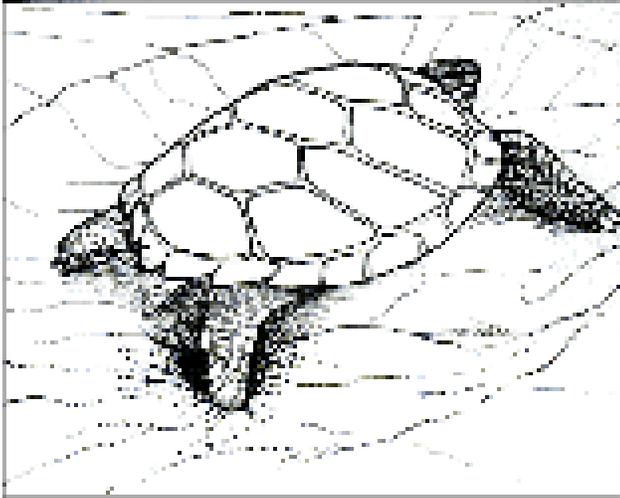
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Sequencing ANSWER KEY

2 - Digging the hole for the nest



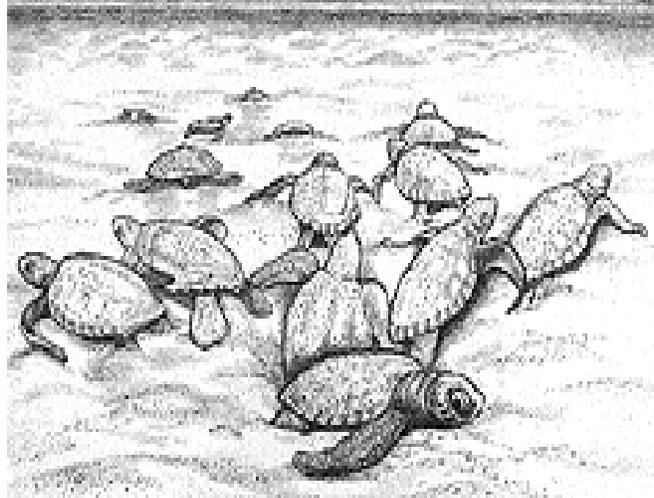
Sea Turtle Conservancy - *Educator's Guide*

3 - Female adult turtle depositing her eggs



Sea Turtle Conservancy - *Educator's Guide*

4 - Hatchlings leaving the nest/crawling to ocean



Sea World Education

1 - Female turtle crawling away from the ocean seeking proper sand to dig her nest



Sea Turtle Conservancy - *Educator's Guide*