Sea Turtle Timeline

Created by the NC Aquarium at Fort Fisher Education Section

Essential Question:

What are the stages of a sea turtle's life cycle?

Lesson Overview:

Students learn about sea turtle life cycles by labeling pictures of the different stages and putting them in order on a circle, to illustrate the cyclical nature of life. An additional discussion allows the students to compare the life cycle of a human to that of a sea turtle.

Learning Objectives:

By the end of this lesson students will be able to:

- Identify the parts of the sea turtle life cycle.
- Put the sea turtle life cycle in order.
- Compare a human's life cycle to a sea turtle's.

North Carolina Standards:

Second Grade:

Science

- **2.L.1** Understanding animal life cycles.
  - **2.L.1.1** Summarizing the life cycle of animals:
    - Birth
    - Developing into an adult
    - Reproduction
    - Aging and death
- **2.L.1.2** Comparing life cycles of different animals such as but not limited to, mealworms, ladybugs, crickets, guppies or frogs

Introduction to Mathematics

- **OIM.A.2.2** Represent patterns in real world situations using a table, graph or equation

Time Frame:

Preparation: 20 Minutes
Activity 1: 20 Minutes
Activity 2: 15 Minutes

Materials:

- Sea Turtle Timeline worksheet
- Construction paper (legal size if possible)
- Scissors
- Glue

Supplemental Background Information for Teachers:

Sea turtles begin their life in a nest laid on a beach. The adult female crawls up the beach past the high tide line and digs her nest with her rear flippers. The lightbulb-shaped hole is about 25 inches deep. Once the hole is finished, she lays an average of 100 Ping-Pong ball-shaped eggs. The eggs resist cracking because of their soft, leathery shell. The turtle covers the hole with sand and crawls back into the ocean. The hatchlings emerge about 60 days later. The hatchlings "boil" out of the nest and begin their dangerous journey to the sea. Ghost crabs, raccoons, stray dogs, and shore birds are just some of the predators that hatchlings must face before they hit the water.

Once the hatchlings make it to the ocean, there is speculation on where they actually go. Many scientists believe they ride the ocean currents and hide along the Sargassum seaweed rafts. In the ocean, there are many predators that rely on hatchlings for a meal. If the sea turtle survives its early years, it continues to mature. With its large mouth and strong jaws, sea turtles can eat crabs, sea urchins and other shelled animals. Most sea turtles are fully mature around age twenty. When fully mature, they mate while at sea. The female sea turtle keeps the fertilized eggs until she is ready to make her nest. She is the only parent that lands on the beach and is responsible for starting the life cycle all over again.

Preparation:

Print one Sea Turtle Timeline worksheet per student.

Activity:

1. Discuss with your students how a sea turtle comes into the world. Explain that they hatch from eggs in a nest on the beach. Ask them to find a picture of eggs in a nest. This is the beginning of a sea turtle's life cycle. Each picture on their sheet represents a stage or part of this cycle. Have each student cut the picture and its label out.
2. Have your students brainstorm about what the newly hatched sea turtle must now do to survive. Remind them that they must eat, mature and not get eaten by predators in order to survive and reproduce. Write some of these important steps on the board for students to see.
3. Discuss how cycles are circular and repeat themselves. Have students draw a large circle on their construction paper. The starting point doesn't matter on the circle, just how the stages or parts move around the circle.
4. Have the students cut out the pictures and labels from their worksheet.

5. Once they have cut them out, have the students match the pictures to the labels.
6. As a class, review their answers for accuracy. Then place the first stage, “eggs in nest,” and its label on the circle.
7. The students should then organize their pictures around the circle in the order they occur. They should not glue them at this time.
8. As a class, discuss the order of the sea turtle life cycle. Once they all have the correct order, the students can glue their pictures to their page. The order should begin with the eggs in their nest and should end with the female returning to the sea. Each picture and label will have a spot on the circle.

Final Activity:

1. Draw a T-graph on the board. On one side write human, and on the other write sea turtle. As a class discussion, have your students compare the life cycle of a human to that of a sea turtle. Have them point out some similarities and differences.

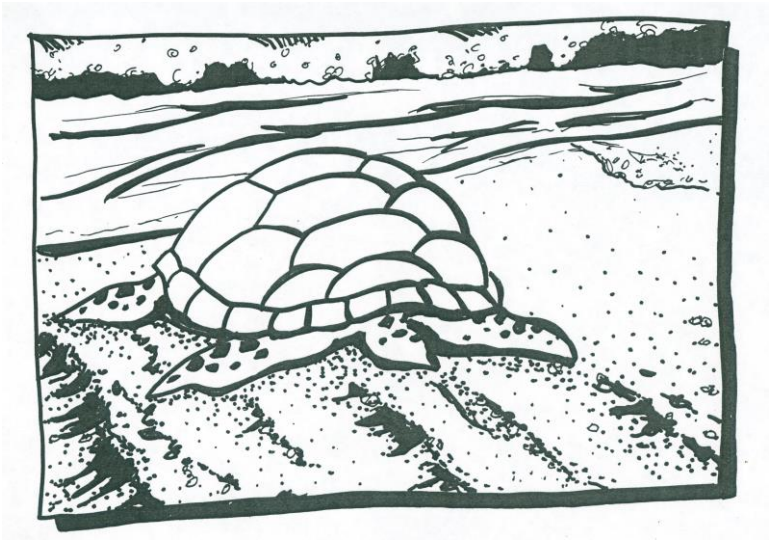
Extensions:

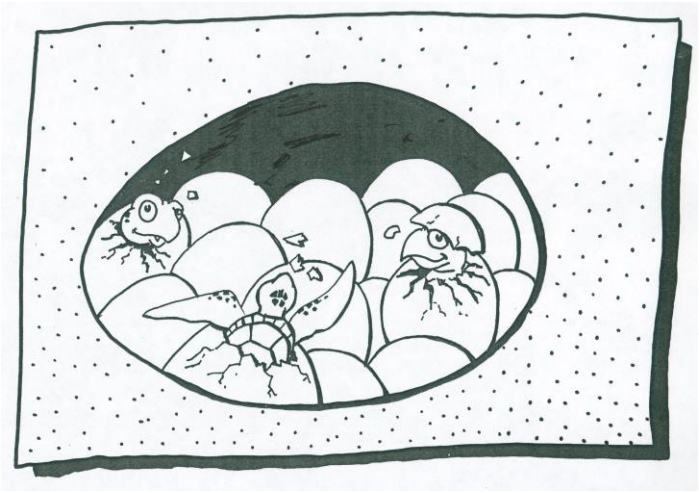
1. Sea turtle hatchlings survive without a parent to guide them. Ask your students to explain what guides a young sea turtle through life. Animals rely on instinct to guide them as they grow. A good film to help make this point is “Cara the Sea Turtle” by *National Geographic*.

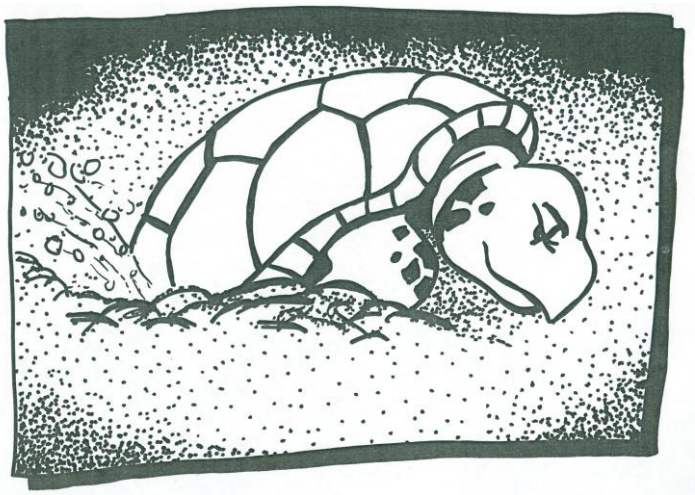
Sea Turtle Timeline

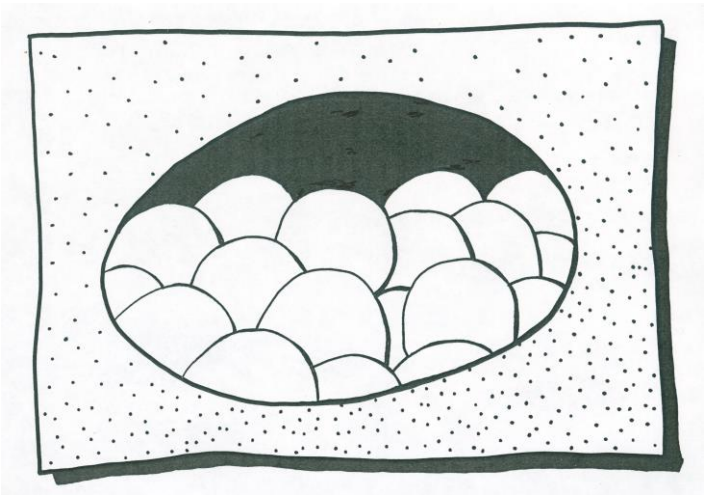
Match the pictures with the corresponding labels and arrange them chronologically. Your sea turtle timeline should start with the eggs in the nest and end with the female turtle returning to the ocean.

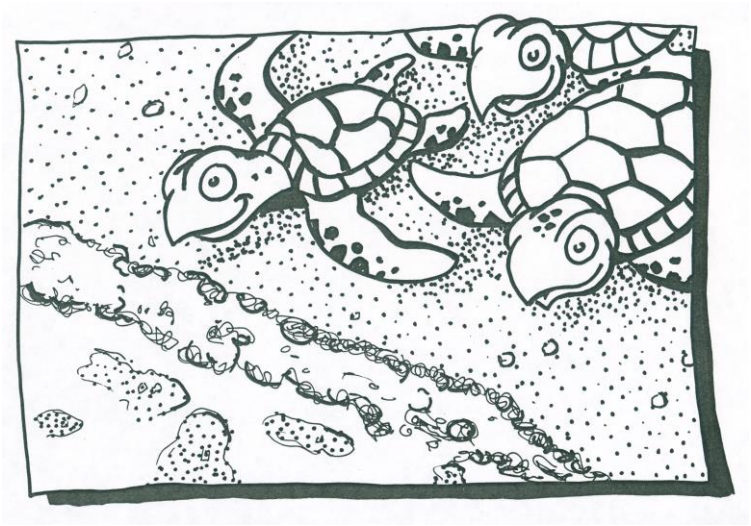
Sea turtle finds a partner	Eggs in nest	Mother crawling up the beach	Hatchlings head to the sea	Mother laying a clutch of eggs
Hatchlings live in sargassum	Juvenile eating a crab	Mother returning to the sea	Mother digging nest in the sand	Turtles hatching from eggs

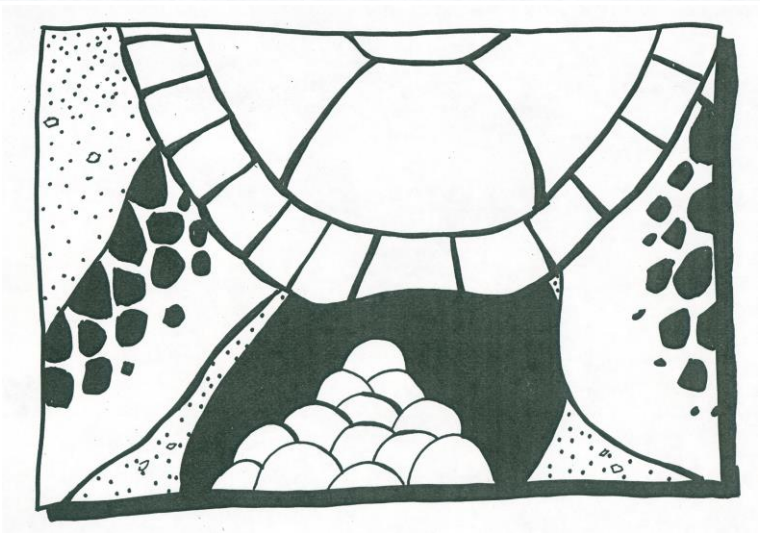


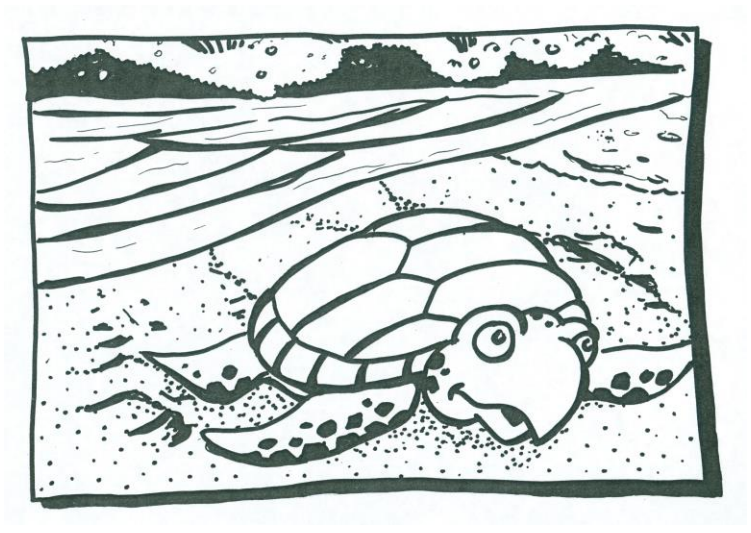




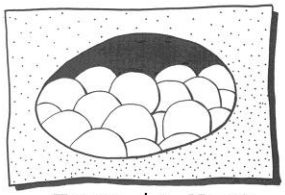




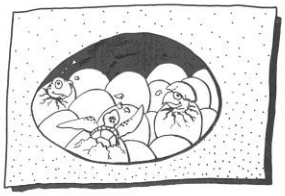




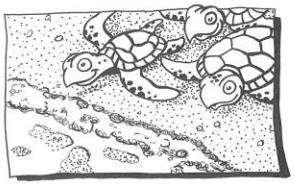
Answers



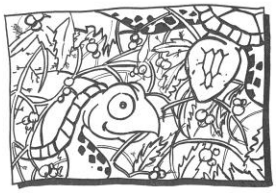
Eggs in Nest



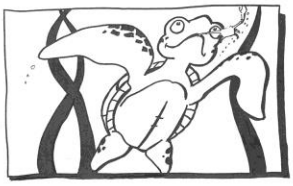
Turtles hatching from the eggs



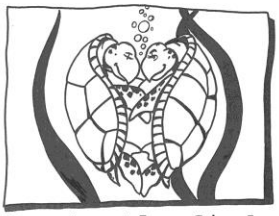
Hatchling heads to the sea



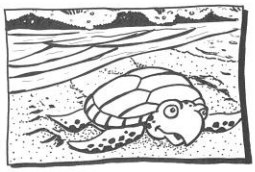
Hatchling lives in sargassum



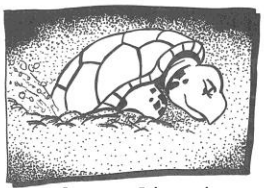
Juvenile eats a crab



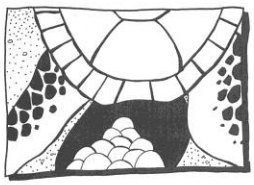
Sea turtle finds a partner



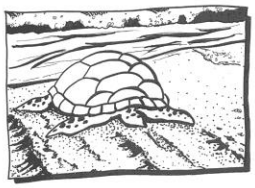
Mother crawling up on the beach



Mother digging nest in the sand



Mother laying clutch of eggs



Mother returning to the sea