



Trapped in a Sea Turtle Nest

Created by the NC Aquarium at Fort Fisher Education Section

Essential Question:

What would happen if you were trapped in a sea turtle nest?

Lesson Overview:

Students will write a short story describing what would happen if they were trapped in a sea turtle nest. Then they will illustrate their story.

Learning Objectives:

Students will ...

- Draw a sea turtle nest.
- Use creative writing skills to narrate a story about being stuck in a sea turtle nest.

North Carolina Standards:

Kindergarten:

Art:

- **K.V.1** Use the language of visual arts to communicate effectively
 - **K.V.1.1** Identify various art materials and tools
 - **K.V.1.4** Understand characteristics of the Elements of Art, including lines, shapes, colors, and texture.
- **K.V.2** Apply creative and critical thinking skills to artistic expression.
 - **K.V.2.2** Use sensory exploration of the environment as a source of imagery.
 - **K.V.2.3** Create original art that does not rely on copying or tracing.
- **K.V.3** Create art using a variety of tools, media, and processes, safely and appropriately.
 - **K.V.3.1** Use a variety of tools safely and appropriately to create art.
 - **K.V.3.2** Use a variety of media to create art.
 - **K.V.3.3** Use the processes of drawing, painting, weaving, printing, collage, mixed media, sculpture, and ceramics to create art.
- **K.CX.2** Understand the interdisciplinary connections and life applications of the visual arts.
 - **K.CX.2.2** Identify relationships between art and concepts from other disciplines, such as math, science, language arts, social studies, and other arts.
 - **K.CX.2.3** Understand that artists sometimes share materials and ideas (collaboration).

English/Language Arts (Writing):

- **W.K.3** Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.
- **W.K.5** With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.



First Grade:

Art:

- **1.V.1** Use the language of visual arts to communicate effectively.
 - **1.V.1.1** Identify tools, media, and processes.
 - **1.V.1.2** Create original art that expresses ideas, themes, and events.
 - **1.V.1.4** Understand the Elements of Art, including lines, shapes, colors, textures, form, and space.
- **1.V.3** Create art using a variety of tools, media, and processes, safely and appropriately.
 - **1.V.3.1** Use a variety of tools safely and appropriately to create art.
 - **1.V.3.2** Use a variety of media to create art.
 - **1.V.3.3** Use the processes of drawing, painting, weaving, printing, collage, mixed media, sculpture, and ceramics to create art.
- **1.CX.2** Understand the interdisciplinary connections and life applications of the visual arts.
 - **1.CX.2.2** Identify connections between art and concepts from other disciplines, such as math, science, language arts, social studies, and other arts.
 - **1.CX.2.3** Differentiate between sharing ideas and copying.

English/Language Arts (Writing):

- **W.1.3** Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.
- **W.1.5** With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.

Second Grade:

Art:

- **2.V.1** Use the language of visual arts to communicate effectively.
 - **2.V.1.2** Create original art that expresses ideas about people, neighborhoods, or communities.
 - **2.V.1.3** Understand the “story” in works of art.
 - **2.V.1.4** Understand characteristics of the Elements of Art, including lines, shapes, colors, textures, form, space, and value.
- **2.V.2** Apply creative and critical thinking skills to artistic expression.
 - **2.V.2.3** Create art from real and imaginary sources of inspiration.
- **2.CX.1** Understand the global, historical, societal, and cultural contexts of the visual arts.
 - **2.CX.1.5** Understand that artists use natural resources in creating art.
- **2.CX.2** Understand the interdisciplinary connections and life applications of the visual arts.
 - **2.CX.2.2** Understand relationships between art and concepts from other disciplines, such as math, science, language arts, social studies, and other arts.

English/Language Arts (Writing):

- **W.2.3.** Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.



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- **W.2.5** With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.

Third Grade:

Art:

- **3.V.1** Use the language of visual arts to communicate effectively.
 - **3.V.1.4** Understand characteristics of the Elements of Art, including lines, shapes, colors, textures, form, space, and value.
- **3.V.2** Apply creative and critical thinking skills to artistic expression.
 - **3.V.2.3** Create art from realistic sources of inspiration.
- **3.V.3** Create art using a variety of tools, media, and processes, safely and appropriately.
 - **3.V.3.3** Create art using a variety of tools, media, and processes, safely and appropriately.
- **3.CX.1** Understand the global, historical, societal, and cultural contexts of the visual arts.
 - **3.CX.1.5** Use local, natural, or recycled resources to create art.
- **3.CX.2** Understand the interdisciplinary connections and life applications of the visual arts.
 - **3.CX.2.2** Understand how to use information learned in other disciplines, such as math, science, language arts, social studies, and other arts in visual arts.
 - **3.CX.2.3** Use appropriate collaborative skills to create a work of art.

English/Language Arts (Writing):

- **W.3.3.** Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- **W.3.4** With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.
- **W.3.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

Fourth Grade:

Art:

- **4.V.1** Use the language of visual arts to communicate effectively.
 - **4.V.1.4** Understand how the Elements of Art are used to develop a composition.
- **4.V.2** Apply creative and critical thinking skills to artistic expression.
 - **4.V.2.2** Use ideas and imagery from North Carolina as sources for creating art.
- **4.V.3** Create art using a variety of tools, media, and processes, safely and appropriately.
 - **4.V.3.3** Create art using the processes of drawing, painting, weaving, printing, stitchery, collage, mixed media, sculpture, ceramics, and current technology.
- **4.CX.2** Understand the interdisciplinary connections and life applications of the visual arts.
 - **4.CX.2.2** Apply skills and concepts learned in other disciplines, such as math, science, language arts, social studies, and other arts, in the visual arts.

English/Language Arts (Writing):

- **W.4.3.** Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.



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- **W.4.4** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
- **W.4.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

Fifth Grade:

Art:

- **5.V.2** Apply creative and critical thinking skills to artistic expression.
 - **5.V.2.2** Use ideas and imagery from the global environment as sources for creating art.
 - **5.V.2.3** Create realistic, imaginative, abstract, and non-objective art.
- **5.V.3** Create art using a variety of tools, media, and processes, safely and appropriately.
 - **5.V.3.2** Use appropriate media for the creation of original art.
 - **5.V.3.3** Create art using the processes of drawing, painting, weaving, printing, stitchery, collage, mixed media, sculpture, ceramics, and current technology.
- **5.CX.2** Understand the interdisciplinary connections and life applications of the visual arts.
 - **5.CX.2.4** Interpret visual images from media sources and the immediate environment.

English/Language Arts (Writing):

- **W.5.3.** Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- **W.5.4** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
- **W.5.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

Time Frame:

Preparation: 5 minutes

Activity: 15 minutes

Materials:

- Photo paper
- Story worksheet
- Camera
- Construction paper
- Scissors
- Clear plastic bowls
- Pencils
- Glue and hot glue gun
- Crayons or markers
- Laminator (optional)



- Sand

Supplemental Background Information for Teachers:

A sea turtle's life begins on the beach. Sea turtles nest, or lay eggs, throughout the summer. Nesting season in North Carolina usually lasts from May to September, reaching peak activity in late June and July. The female loggerhead comes ashore at night and drags her body far up the beach above the high tide line. She carefully selects a nest site and digs a hole about 18" deep with her rear flippers and begins laying her eggs. The nesting process is a complex and vulnerable time for a mother sea turtle. She may sometimes be frightened away by bright lights. Predators such as foxes, raccoons, and ghost crabs are found on the beach and may eat her eggs.

On average, 120 golf ball-sized, tough, leathery eggs are laid in the nest. The turtle covers her eggs completely with sand and returns to the sea. The average female may nest three to five times during the summer months every two weeks. Since most nesting occurs at night, scientists rely on using trails and tracks to identify where a nest has been laid and by what species. A track is an impression of a single flipper. Long lines of tracks showing an animal's movement and behavior are called trails. Scientists measure the width of a sea turtle's track, called the straddle, as well as the crawl pattern of each species to tell what kind of turtle laid a nest.

Unfortunately, sea turtles face many challenges in coastal areas. What were once long stretches of open beach where turtles could nest are now developed with homes and businesses. Bright lights discourage females from coming ashore at night, and confuse young turtles after they leave the nest. Debris and other ocean pollution also create life-threatening problems for these ancient reptiles. Although sea turtles have always fascinated people, we still have a lot to learn about their migrations, nesting habits, and life spans. If you see a sea turtle nesting or hatching:

- Enjoy this event from a distance. Many turtles scare easily and may stop the nesting process and return to the sea before they lay their eggs.
- Take note of the location and report it to the local police department. They will contact the area's sea turtle coordinator.
- Please do not take flash photos of her! Scientists use infrared cameras to get photos so they do not disrupt her night vision.
- Do not put your hands on or near the turtle. Any distractions may frighten and disorient her, causing her to return to the ocean before completely covering and camouflaging her nest.
- Also please refrain from giving out the location of a nesting turtle to anyone other than the authorities.



- If you see a nest hatching, leave them alone. You can report it to the local police department. They will contact the area's sea turtle coordinator to assist in the hatching.

Sea turtles hatch from their nests about two months after the mother turtle lays the nest on the beach. They have to wiggle and dig and use each other for support to get to the surface. Some of these turtles might not be able to get out of the nest, either because they hatched late or because they are buried under shells. For a variety of reasons, some turtles never even hatch out of their eggs. Other turtles hatch out of their eggs but die before making it out of the nest. This is normal, which is why sea turtles lay lots of eggs.

All sea turtle species are listed as either threatened or endangered. One way scientists can help the sea turtles is by excavating, or digging up, a nest that has already hatched. There is a lot of information scientists learn by digging up a nest after it has hatched. Once they have given the healthy hatchlings a chance to dig their way out of the nest, the scientists dig it up the rest of the way and see what is left. They count the number of eggshells left in the nest to see how many of the turtles hatched. Hopefully, most of these hatched turtles were able to get out of the nest. Some hatched turtles might still be hanging out in the nest, unable to get out and by excavating a nest, scientists and volunteers can help those babies make it safely to the ocean. Others may have died before being able to get out of the nest. Scientists also count the number of unhatched eggs, which indicates the total number laid in the nest.

The people who dig up sea turtle nests are trained volunteers or professionals that work with sea turtles. They have to be very careful not to dig up the nest too soon. They are also concerned about not wanting to harm any turtles that might be left in the nest. If you see a sea turtle nest hatch, you are very lucky! Enjoy watching the babies make their way to the ocean, and keep them safe by leaving them alone. If it is an unmarked nest (without a sign or other information), report the nest to the local authorities.

Preparation:

Collect enough materials for every student in the class. Print enough copies of the story worksheet so each student will have one. Cut off the header and footer. Cut the pages in half.

Activity:

1. Review sea turtle nesting.
2. Explain to the students they will be writing a story as if they were stuck in a sea turtle nest and creating this scene on their construction paper.
3. Take a photo of each of the students and have them pose as if they were stuck in a sea turtle nest.
4. Print these photos on photo paper and have the students cut him or herself out.
5. Hand out a piece of construction paper and a clear plastic bowl to each of the students and have them trace the outline of the bowl onto the top half of their paper.
6. Pass out crayons or markers.



7. Have the students draw what they think would be inside a turtle's nest.
8. Next, the students will paste the picture of themselves in the scene.
9. Have the students write about their scenes from their day stuck in the sea turtle nest on their handouts. They can be as creative or literal as they would like.
10. Have them glue their story below their photo. (You can choose to have the students peer edit one another's papers before gluing a final draft on their paper).
11. Once the students have completed their story, laminate the paper (optional).
12. Put a handful of sand in the middle of the circles.
13. Hot glue the outer rim of the plastic bowl and paste to the outline of the circle on the construction paper.
14. Glue the bowl onto the paper.
15. To ensure the bowl was properly glued, turn the paper right side up and watch for any falling sand. If there is, patch the holes with hot glue.



Summary:

Throughout the summer months, sea turtle nests can be found on certain nesting beaches. Hatching baby sea turtles can experience a number of challenges/obstacles while trying to get to the surface. Some of these turtles might not be able to get out of the nest either because they hatched late or because they are buried under shells. Many times on nesting beaches there are programs, volunteers and scientists that help to ensure the baby sea turtles hatch, escape, and make it to the ocean safely.

Extensions:



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1. Have the students research the challenges of a baby sea turtle getting to the ocean. Have them continue their stories. If you were to escape the nest, what journey would you go on to get to the ocean? What type of predators/other animals would you encounter? What role does the turtle play in its ecosystem?
2. Plan a visit to the aquarium: <http://www.ncaquariums.com/fort-fisher/teachersstudents>. Find two types of sea turtles on exhibit. Ask how and why are the turtles on exhibit and if they will be returned to the ocean. Plan a behind the scenes visit to encounter even more sea turtles.