



On the Sargasso Sea

(Sea Turtle Camouflage Activity)

Created by the NC Aquarium at Fort Fisher Education Section

Essential Question:

How does the coloring of young sea turtles help them hide?

Lesson Overview:

Students will learn about sea turtle camouflage by each coloring a sea turtle and matching sargassum. Students will then mix up the class' turtles and help each turtle find the sargassum in which it can hide.

Learning Objectives:

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

- Identify types of camouflage used by animals for survival.
- Match a sea turtle to sargassum.
- Discuss why the sea turtles and other animals have to be camouflaged.

North Carolina Standards:

Kindergarten:

Art:

- **K.V.2** Apply creative and critical thinking skills to artistic expression.
 - **K.V.2.3** Create original art that does not rely on copying or tracing.
- **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).

Science:

- **K.L.1** Compare characteristics of animals that make them alike and different from other animals and nonliving things
 - **K.L.1.1** Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.

First Grade:

Art:

- **1.V.2** Apply creative and critical thinking skills to artistic expression.
 - **1.V.2.1** Recognize that artistic problems have multiple solutions.
 - **1.V.2.3** Create art from imaginary sources of inspiration.



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- **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.

Science:

- **1.L.1** Understand characteristics of various environments and behaviors of humans that enable plants and animals to survive
 - **1.L.1.1** Recognize that plants and animals need air, water, light (plants only), space, food and shelter and that these may be found in their environment

Second Grade:

Art:

- **2.V.2** Apply creative and critical thinking skills to artistic expression.
 - **2.V.2.1** Understand that artistic problems have multiple solutions.
 - **2.V.2.3** Create art from real and imaginary sources of inspiration.
- **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.

Third Grade:

Art:

- **3.V.2** Apply creative and critical thinking skills to artistic expression.
 - **3.V.2.3** Create art from realistic sources of inspiration.
- **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.

Fourth Grade:

Art:

- **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.

Science:

- **4.L.1** Understand the effects of environmental changes, adaptations and behaviors that enable animals (including humans) to survive in changing habitats
 - **4.L.1.4** Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitat



Fifth Grade:

Science:

- **5.L.2** Understand the interdependence of plants and animals with their ecosystem.
 - **5.L.2.3** Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem

Time Frame:

Preparation: 5 Minutes

Coloring Activity: 20 Minutes

Matching Activity: 15 Minutes

Materials:

- Sea Turtle Worksheet
- Sargassum Worksheet
- Photo of a sea turtle in sargassum
- Scissors
- Crayons
- Access to internet
- Paper and pencil

Preparation:

Print enough pages of sea turtles so each student will have one turtle. Cut the sea turtles apart. Print enough pages of sargassum so that each student will have one section. Cut the sargassum page in half. Print the image of a sea turtle in sargassum or show it online.

Supplemental Background Information for Teachers:

An animal's natural coloring or form that enables it to blend in with its surroundings is called camouflage. Camouflage can be used to hide from predators or to sneak up on prey. There are many different types of camouflage; one is called counter shading. Counter shading is when the top of the animal is darker than the bottom of the animal. One example is the whale shark. The top of the animal looks dark like the deep ocean. The bottom of the animal is lighter to look like the surface of the ocean from below.

Sea turtles are another animal that is counter shaded. When sea turtle hatchlings leave the beach, they swim to the Gulf Stream. They do not stay in the Gulf Stream long but get out into an eddy. An eddy is a current that moves off of the main current in the form of a circle (similar to a whirlpool). These eddies are full of sargassum. Juvenile sea turtles use the sargassum to hide from predators and find food.



Scientists learned about this behavior by placing tags on hatchling turtles before they left the beach. You can learn more about this project here: <http://www.bbc.com/news/science-environment-26435342>.

Activity:

1. Have your students brainstorm what camouflage is and how it is used in the wild. Have a group discussion of the different types of camouflage. They should give examples of each one. For example: whale sharks, scorpion fish, seahorses, and flounder.
2. Show the class the picture of the juvenile sea turtle in the sargassum and explain that they use camouflage to hide from predators. Discuss how it can hide and survive in the ocean with this technique.
3. Read the following article to your students about the importance of sargassum for sea turtles to survive (<http://www.alertdiver.com/Sargassum>).
4. Distribute a sea turtle and crayons to each student. Ask your class to color the sea turtle any way they would like. Once their sea turtles are colored, have each student cut their picture out.
5. Distribute a sargassum worksheet out to each student. Have your students color in the sargassum to match the sea turtle they colored. Collect all the sea turtle cut outs. Mix up the sea turtle worksheets.
6. Have the students get into a circle in a clear area and sit down. Lay out the sargassum worksheets in the circle.
7. Starting anywhere in the circle, pass out the sea turtles one at a time. Have the students help the sea turtles “migrate” to the matching sargassum by passing the turtles around the circle. Continue until all of the turtles are matched with the correct sargassum.
8. Discuss how the sea turtle would be able to hide and camouflage itself in the sargassum.
9. Have your students write down two reasons for why an animal needs or uses camouflage. Have them divide into small groups and discuss their answers. Have the class then write down three animals that they know use camouflage and how they use it to survive.

Extension Activity:

1. Other animals use camouflage as well. Show your students the video on octopus camouflage (<http://www.youtube.com/watch?v=eS-USrwuUfA>). Only watch the first two minutes. Discuss how the octopus uses its surroundings to stay hidden from the scuba diver. Or show your student the video on flounder camouflage (<http://www.youtube.com/watch?v=EIMRSt40OMk#t=37>). Discuss how the flounder uses his camouflage to stay hidden from his predators as an adult. Discuss how without the camouflage the flounder is unable to stay hidden, therefore allowing for the predator to see it.





