

# Bottle Cap Sea Turtles

Created by the NC Aquarium at Fort Fisher Education Section

## Essential Question:

How can you recycle bottle caps into sea turtles?

## Lesson Overview:

Students will learn about marine debris and how it impacts sea turtles. They will then create a sea turtle using plastic soda caps.

## Learning Objectives:

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

- List types of marine debris.
- Explain how marine debris impacts sea turtles.
- Create a sea turtle out of a plastic soda cap.

## 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.V.3** Create art using a variety of tools, media, and processes, safely and appropriately.
  - **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).

### 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.
- **1.V.3** Create art using a variety of tools, media, and processes, safely and appropriately.
  - **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.

*Science:*

- 1.L.1 Understand characteristics of various environments and behaviors of humans that enable plants and animals to survive.
  - 1.L.1.2 Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
- L.3.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- SL.3.2 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
  - 3.C.1.2 Exemplify how various groups show artistic expression within the local and regional communities.

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.V.3 Create art using a variety of tools, media, and processes, safely and appropriately.
  - 2.V.3.3 Use the processes of drawing, painting, weaving, printing, collage, mixed media, sculpture, and ceramics to create 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.

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.V.3 Create art using a variety of tools, media, and processes, safely and appropriately.
  - 3.V.3.3 Use the processes of drawing, painting, weaving, printing, collage, mixed media, sculpture, and ceramics 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.

Fourth Grade:

*Art:*

- 4.V.2 Apply creative and critical thinking skills to artistic expression.
  - 4.V.2.1 Identify different successful solutions to artistic problems.
  - 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 Use the processes of drawing, painting, weaving, printing, collage, mixed media, sculpture, and ceramics to create 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.

### 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.3.3 Use the processes of drawing, painting, weaving, printing, collage, mixed media, sculpture, and ceramics to create art.

#### *Science:*

- 5.L.2 Understand the interdependence of plants and animals with their ecosystem.
  - 5.L.2.2 Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).

### Time Frame:

Preparation: 5 minutes

Activity: 15 minutes

### Materials:

- Green cardstock
- Scissors
- Liquid glue
- Plastic soda caps
- Sharpies (optional)

### Supplemental Background Information for Teachers:

Marine debris is any man-made waste that ends up in the ocean. It can wash away during a storm, be left on a beach, or be thrown overboard from a ship. Once it is in the ocean it is very difficult to remove. The majority of marine debris is plastic. Plastic can stay in the ocean for an incredibly long time. It does not biodegrade like other items, such as paper.

Instead, plastic photodegrades, which causes it to break down into smaller pieces of plastic. Many marine organisms, including sea turtles, are confused by marine plastic and eat it. This can cause the animal to become sick or even die.

Once plastic is in the ocean, it is very difficult to remove. The best solution is to prevent it from entering the ocean in the first place. Sea turtles often eat balloons and plastic bags, mistaking them for jellyfish. Balloons end up in the ocean when people release them, whether intentionally or unintentionally. There are several organizations, such as Balloons Blow, that work hard to increase awareness of the effects balloons have on wildlife.

Plastic bags are now being found on every continent, including Antarctica. Because they are lightweight, it is easy for them to blow out of trash cans. We encourage you to refuse plastic bags when offered and to use your own reusable bag instead. If you must use a plastic bag, we encourage you to return it to the original store, where they can recycle it into other products. Many communities are considering or have already enacted single-use plastic bag bans or charging extra for them. Every plastic bag we refuse is one less that could possibly injure wildlife.

Beach sweeps are another great way to decrease the amount of plastic in the ocean. Some of the top items found during beach sweeps are cigarette butts, soda bottle caps and straws. Reducing our use of plastic is very important so we can keep these items out of the ocean. For more information on reducing your plastic use visit:

<http://seaturtleexploration.com/explore-and-learn/wombles-tale/>.

### Preparation:

Print enough sea turtle outlines on green cardstock so that each student will have one. You can cut out each turtle on the outline or separate each turtle and allow the students to cut them out themselves. Collect enough soda bottle caps so that each student will have one.

### Activity:

1. As a class, discuss marine debris. Answer questions such as what is it? Where does it come from? How do we keep it out of the ocean?
2. Tell students they will be creating sea turtles out of recycled plastic.
3. Pass out one sea turtle outline to each student.
4. Have them use their scissors to cut along the outside edges of the turtle.
5. Pass out a soda cap and glue to each student.
6. Have the students glue their cap to the sea turtle outline. Hint: it is easiest to put the glue on the rim of the cap and then place it down on the paper.
7. Optional: have the students decorate their cap with sharpies.



### Extensions:

1. Have the class conduct a beach sweep and use caps from the beach sweep to make the sea turtles.
2. Visit the Womble's Tale page for additional ways to reduce your plastic use:  
[seaturtleexploration.com/explore-and-learn/wombles-tale/](http://seaturtleexploration.com/explore-and-learn/wombles-tale/)
3. Visit our Pinterest page for more ideas on recycled plastic crafts:  
<http://www.pinterest.com/ncaquariumff/crafting-from-recycled-materials/>

