



RECYCLED JELLYFISH CRAFT

TIME & AUDIENCE LEVEL

- 30-35 minutes
- 1st - 2nd Grade

VOCABULARY

Bell
Tentacles
Nematocyst
Oral arms
Esophageal Papillae
Keratin
Marine debris

MATERIALS

- Two Plastic Bags
- Scissors
- Optional: String and Stick

SUMMARY

Plastic is everywhere. It helps make life easier, but it can also have a negative impact on ecosystems. One-time-use items, like the plastic bags we collect at the grocery store and retail shops are hard to recycle and can resemble food to some wildlife. This activity gives a couple plastic bags in your home a new purpose. Once completed, your jellyfish will be a reminder to reduce, reuse and recycle.

OBJECTIVES

- Name the parts of a jellyfish
- Recognize the impacts that one-time-use plastics have on marine animals
- Use household items to create art with a message
- List alternatives to using one-time plastics

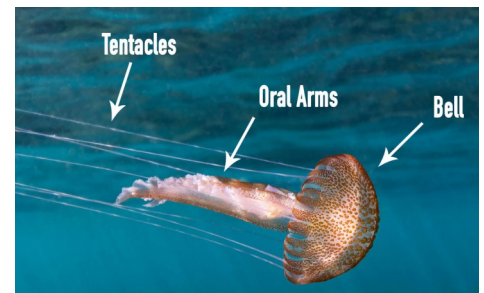
BACKGROUND INFORMATION

Jellyfish, such as moon jellies and cannonball jellies, are the main source of food for the largest species of sea turtle in the world - the leatherback. Jellyfish have three main parts to their body. The **bell** is the umbrella-shaped body of a jellyfish. **Tentacles** trail off the bell and contain **nematocysts**, or venomous stingers, to capture prey and defend against predators. Once prey is captured, **oral arms** help move the food into the jellyfish's mouth.

Leatherback sea turtles have special adaptations for eating slippery jellyfish. Rigid spikes called **esophageal papillae** line the leatherback's mouth and esophagus and point inward to help grab and swallow their food. Esophageal papillae are made of the protein **keratin**, which is the same material that makes up human hair and fingernails. They also have cusps on their beak for piercing jellies.

Plastic bags floating in the ocean can resemble jellyfish and may get caught inside a sea turtle's throat. This is a form of **marine debris**, or a solid material that ends up in the ocean intentionally or unintentionally.

The best way to keep plastic bags out of the ocean is to replace them with a more sustainable alternative like a cloth bag. If you already have plastic bags at home, try to find a way to reuse and repurpose them. By doing this, you will help marine animals like leatherback sea turtles.



Jellyfish Anatomy; Photo by: Dive Buddies 4 Life



Esophageal Papillae in a Leatherback Sea Turtle; Photo by: Melbourne Museum

CRITICAL THINKING QUESTIONS

- How can plastic hurt sea turtles?
- What else can you make out of a plastic bag?
- What are some other items you only use once then throw away? Can you think of something else you could use instead?

GEORGIA STANDARDS OF EXCELLENCE

- S1L1 Comparing and contrasting basic needs of animals
- S3L2 Obtain, evaluate and communicate information about the effects of pollution
- S4L1 Communicate information about the roles of organisms and the flow of energy within an ecosystem.

INTRODUCTION

Start this activity by setting up your activity space and laying out your supplies. Explain that you are going to make an animal using the bags to help each other remember some of the best ways to protect the ocean and its animal inhabitants.

WARM UP

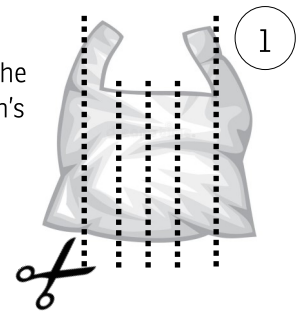
First, talk about some of the ways plastic helps us (helps protect goods, lightweight, found in TVs/computers/phones). Second, brainstorm ways plastics can hurt marine animals. Explain that the bags you are using for your artwork are made of plastic. This type of plastic is designed to be used one time. After it is used once, it often becomes trash.

Look at photos of leatherback sea turtles and describe how they are adapted to eat jellyfish. Review the parts of a jellyfish (the bell, oral arms, and tentacles). Ask what human-made things floating in the ocean might look like jellyfish.

ACTIVITY PROCEDURES

One bag will be used for the bell (head) of the jellyfish. The second bag can be cut into strips of different sizes; shorter strips will be oral arms, while longer strips will be tentacles. As an optional step, you can attach the jellyfish to a stick using a string so you can hang and carry your craft.

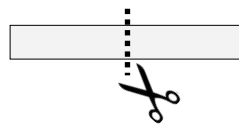
1. Take one bag and cut strips from bottom to top. Cut some strips shorter than others; these will become the oral arms. The longer strips will become the jellyfish's tentacles.



2. To start making the bell, take the second bag and cut two small holes in each corner.



3. Take one of your tentacle strips and cut it in half crosswise.



4. Take one of the half-strips and tie it around the left bag handle so that the knot is roughly in the middle of the strip.



5. Take one of the loose ends of the half-strip and pull the handle inside the body of the bag. Push the loose end of the strip through one of the holes in the left corner.



RESOURCES

- National Marine Life Center
<http://nmlc.org/>
- National Oceanic and Atmospheric Association
<https://www.fisheries.noaa.gov/>

CONTACT INFORMATION

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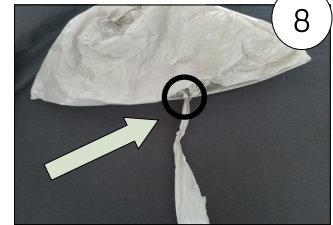


6. Find the second hole you cut in the left corner. Thread the loose end of the strip back through the second hole and into the body of the bag once again. Tie the threaded strip to the left bag handle.

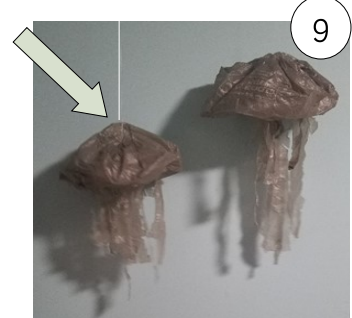


7. Repeat steps #4-6 for the right side of the bag.

8. Using your remaining strips (tentacles and oral arms), tie one end of each strip to the bag handles inside the bell of the jellyfish.



9. OPTIONAL: Poke two small holes in the center of the head. Weave a long piece of string in one hole and out the other; tie it in a knot. Wrap or tie the loose end of the string around a stick or clothes hanger.



WRAP UP & CONSERVATION MESSAGE

Review the parts of a jellyfish. See if you can identify the different parts of the jellyfish on your plastic bag jelly! Even plastic bags that haven't been turned into a jellyfish can look like a jellyfish in the ocean. Because leatherback sea turtles can mistake plastic bags for their favorite food, we can help leatherbacks through our everyday choices.

You might know the three R's: reduce, reuse, recycle; however, another R also belongs on that list: refuse! By refusing single-use plastics from the start you can limit the amount of plastic marine debris that ends up in the ocean.

The most effective way to refuse single-use plastic is by finding alternatives that will last you a long time. For example, use cloth bags when you go shopping and purchase food in bulk to limit the amount of packaging needed. Together, review alternatives for plastic bags or other one-time-use plastics you find you in your home. Each of our small actions add up to make big differences for marine animals!