

Build a (Glowing) Jellyfish

Discover bioluminescent jellyfish and make one for your home!

Materials:

Scissors, glue, tape, markers or paint, craft materials (yarn, tissue paper, paper plates, streamers, ribbon, balloons, string, recycled plastic bags, etc.) You can use whatever supplies you have!

Optional: Glow-in-the-dark paint or glow sticks.

Caution: Materials such as streamers and plastic bags can be choking hazards. Always supervise young children!

Instructions:

Step 1: Get inspired! Jellyfish come in many different shapes and sizes. Look at the pictures on the **jellyfish gallery sheet**. Choose what kind of jellyfish you want to create. You can even make up a new species!

Think about: What size is your jellyfish? Does it have long or short tentacles? Are they curly or straight? Is its body round or flat? What color(s) is it?

Step 2: Make the body. Find materials to create the body of your jellyfish. Fold a piece of tissue paper or plastic bag into the right shape, stuff it with paper or plastic bags, or use a paper plate. Glue or tape the body together.

Step 3: Attach tentacles. Create tentacles out of ribbons, streamers, papers, strips of plastic bags, or other materials. Use scissors to cut them to the desired length. Glue or tape them to the body.

Hint: To make curly tentacles, cut a paper circle into a spiral pattern, or ask a grown-up to curl gift wrapping ribbons with scissors.

Step 4: Make your jelly fish glow! If you have glow-in-the-dark paint or glow sticks available, use them to decorate your jellyfish. Turn off the lights and admire your jellyfish glowing in the dark!



Jellyfish Gallery

Jellyfish live all over the world's oceans, from the surface to the deep sea. Over 2000 different species are known, but many more remain to be discovered. Explore their shapes and colors!



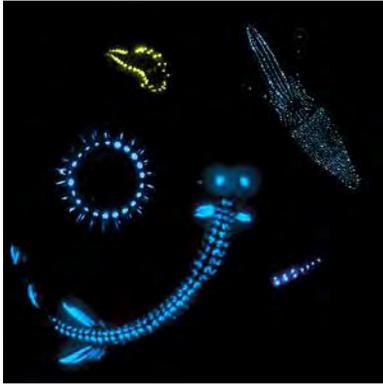
Discover more about jellyfish (courtesy of National Geographic):

www.youtube.com/watch?v=uHB9JJ5dKe8

Image Credits: All public domain images from Wikimedia Commons, Pixabay.com, Pxhere.com, and Pickpik.com.

Light in the Deep Ocean

Jellyfish glow in the dark, in many different colors such as green, blue, and purple. They make their own light through **bioluminescence**. This process is common for animals living in the deep ocean, as it is too deep for sunlight to reach. Bioluminescence is much rarer on land, although there are a few examples such as fireflies, glow-worms, and fungi.



Bioluminescence comes from a chemical reaction in the animal's body, similar to the reaction in a glowstick. Some animals, like jellyfish, get the glowing substance they need for from the food they eat. Other animals, such as shrimp, make their own glow-in-the-dark substance.

Left: Glowing marine creatures. Image: Edith Widder, teamorca.org

Glowing has many advantages in dark environments. Some animals use it to communicate, while glow for defense, camouflage, or to find a mate. Other animals use bioluminescence to find food. The anglerfish has a glowing lure on its head to attract prey!

Right: Anglerfish. Image: Bruce Robison, via National Geographic.



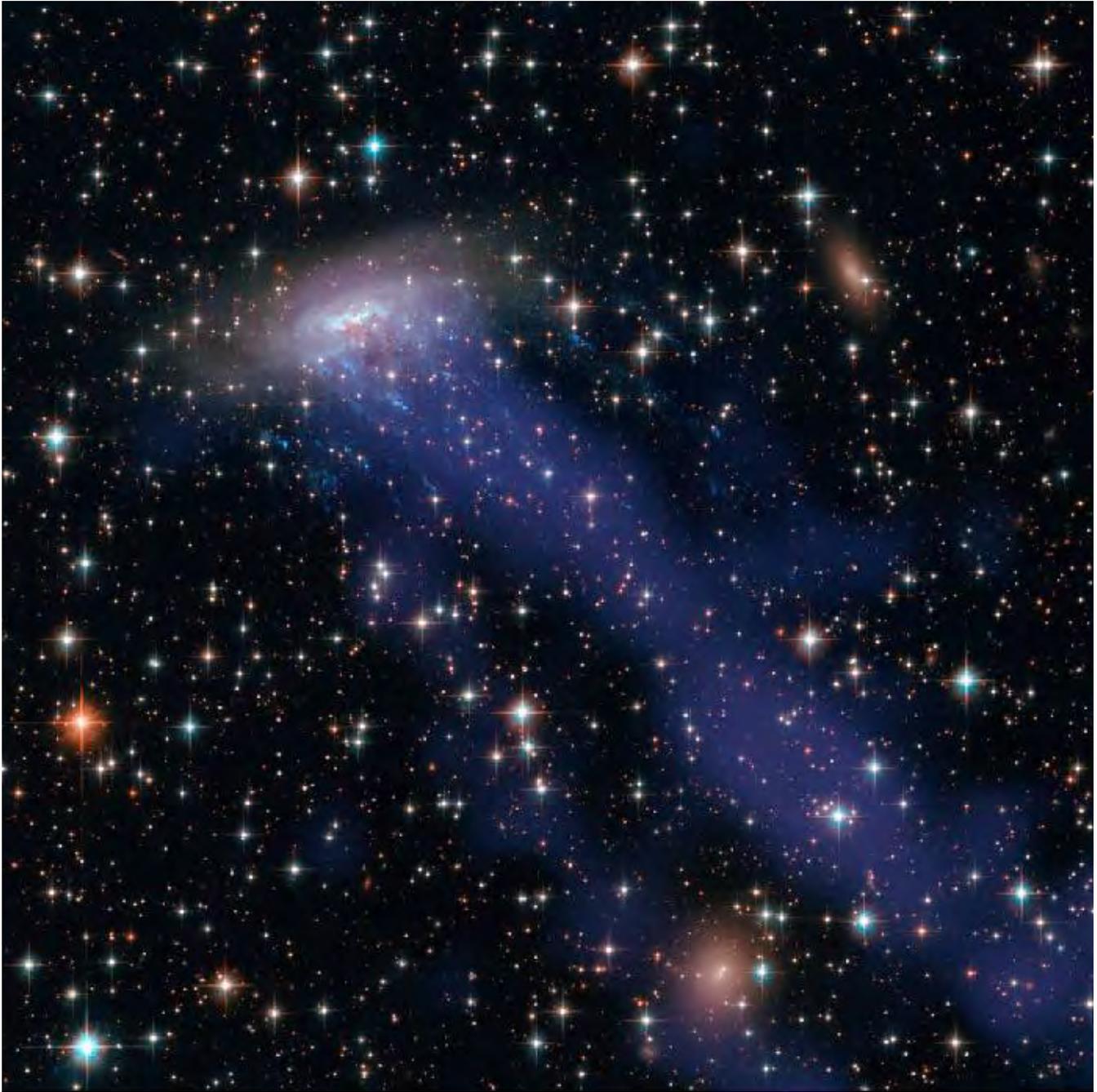
Scientists have only recently developed tools to study the amazing bioluminescent creatures of the deep ocean. We will learn a lot more about bioluminescence in the coming years!

Learn more about bioluminescence in the ocean:

www.youtube.com/watch?v=fYsAK24le6U

Jellyfish Galaxy

The galaxy ESO 137-001 is shaped like a jellyfish! Blue ribbons of young stars dangle from the galaxy's disk like cosmic tentacles. This is an unusual shape for a galaxy. Scientists will use the James Webb Space Telescope, launching in 2021, to learn more about the galaxy's shape and its "tail" of stars and hot gases.



[Image from Hubble Space Telescope and Chandra X-ray Observatory: NASA/ESA/CXC.](#)