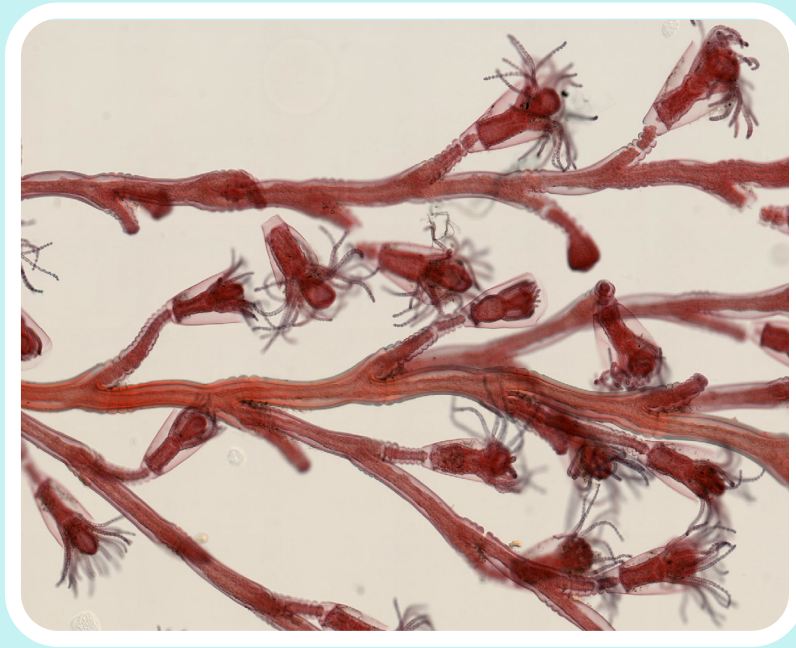


# Obelia

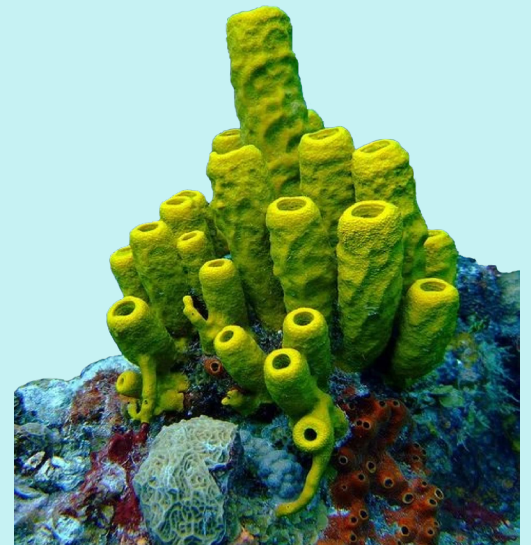


# Obelia

**Do you need an idea for a scientific study?  
Try out one of our ideas or make one of your own.**

Obelia are interesting organisms that take a couple of different forms that create problems when trying to classify the organism. Take the following brief quiz to see how much you already know about organism classification schemes. See the bottom of page 4 to check your answers.

1. Which of these animals is most closely related to a whale?
  - a. shark
  - b. hippopotamus
  - c. tuna
  - d. bass
2. Which of these foods is actually a fungus?
  - a. cucumber
  - b. mushroom
  - c. seaweed
  - d. almond
3. Which of these creatures was once thought to be a plant?
  - a. sea sponge
  - b. octopus
  - c. bat
  - d. spider
4. Which animal has the closest DNA match to a human?
  - a. chimpanzee
  - b. gorilla
  - c. orangutan
  - d. baboon
5. What is the largest living organism on Earth?
  - a. blue whale
  - b. African elephant
  - c. giant sequoia tree
  - d. a fungus in Oregon



# Classifying Candy Creatures!

Ever wondered how scientists organize the millions of species on Earth? It's like a giant puzzle! They use a system called classification, grouping organisms based on shared characteristics. In this lab, you'll become candy classifiers! Instead of plants and animals, you'll use a delicious

## Materials

- A variety of candies (at least 10 different types, with varying shapes, sizes, colors, and textures)

## Procedure

1. **Observe:** Carefully examine your candy collection. Pay attention to features like:

- **Shape:** Is it round, square, long, flat, etc.?
- **Color:** What color is it? Are there multiple colors?
- **Size:** How big is it?
- **Texture:** Is it smooth, rough, bumpy, soft, hard, etc.?
- **Composition:** Is it chewy, crunchy, chocolatey, etc.?

2. **Create Your Classification System**

- Decide on the broadest categories for your candies. These could be based on any characteristic you choose (e.g., "Chocolatey" vs. "Non-Chocolatey," "Chewy" vs. "Hard"). These are like the **Domains** in biological classification.
- Divide each of your broad categories into smaller groups based on another characteristic. These are like **Kingdoms**.
- Continue dividing your groups into smaller and smaller categories based on shared characteristics, just like scientists do with **Phylum**, **Class**, **Order**, **Family**, **Genus**, and **Species**. You can create as many levels as you like!

3. **Draw a Diagram**

- Create a diagram or flowchart to show your classification system. You can use a branching tree diagram, a table, or any other visual representation that makes sense to you.

4. **Name Your Candy Creatures**

- Give each of your "species" of candy a unique two-part name (like binomial nomenclature). Get creative! For example, you could have *Chocolateus sphereus* for a round chocolate candy.

## Questions

1. Write a paragraph explaining the reasoning behind your classification system. Why did you choose the categories you did?
2. What challenges did you face in creating your classification system?

# Obelia

## Obelia: The Shape Shifter

Obelia might look like a simple underwater plant, but it's actually a fascinating animal with a secret life! Here are some cool facts about this creature that will make you see it in a whole new light:

**Shape-shifting Life:** Imagine being able to transform between two completely different bodies! Obelia does just that. It has a life cycle called "alternation of generations," where it switches between a polyp and a medusa stage. The polyp looks like a tiny plant-like stalk attached to rocks, while the medusa resembles a mini jellyfish that swims freely.

**Tiny Stingers:** Don't be fooled by its delicate appearance. Obelia is a predator armed with stinging cells called nematocysts on its tentacles. These tiny harpoons inject venom into unsuspecting prey, like microscopic crustaceans, paralyzing them. It's like having built-in fishing rods with tiny poisonous darts!

**Underwater Colonies:** Obelia polyps don't like to live alone. They form branching colonies that resemble miniature underwater trees. These colonies are made up of many individual polyps connected together, sharing nutrients and working as a team.

**Reproductive Superpowers:** Obelia has two ways to reproduce. Polyps can create new polyps asexually, like making copies of themselves. Medusae, on the other hand, reproduce sexually by releasing sperm and eggs into the water. This creates genetic diversity and helps obelia adapt to its environment.

**Ancient Origins:** Obelia belongs to a group of animals called cnidarians, which have been around for over 600 million years! This means they existed even before dinosaurs roamed the Earth. Talk about ancient history!

**Hidden World:** Obelia is often found in shallow coastal waters, attached to rocks, seaweed, or even shells. So next time you're at the beach, keep an eye out for these fascinating creatures. You might just discover a whole new world hidden beneath the waves!



Please visit our site for more helpful information:  
[STEMsims.com](https://www.stemsims.com)

Answers will vary. **Answers:** Page 2 Answers: 1) b, 2) b, 3) a, 4) a, 5) d. Page 3 Answers: Classifying Candy Creatures: 1) Answers will vary. 2) Answers will vary. 3)

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