



Lesson Plan 68: Cnidaria (03/19/21)

Draw a coral

Materials:

- chalk

Instructions:

1. Give each student a piece of chalk
2. Ask them what a coral is, discuss the symbiotic relationship between corals and zooxanthellae
3. Draw a brain coral, elk horn coral, and tabletop coral
4. Show them pieces of bleached coral and ask them why they think it is bleached
 - a. Bleaching happens with an increase in light intensity and water temperature
 - b. In Australia they use shade nets to help preserve the GBR

Jellyfish in a bottle

(<https://www.pbs.org/parents/crafts-and-experiments/make-an-upcycled-jellyfish>)

Materials:

- Water bottles
- Food coloring
- Plastic bags
- String
- Scissors

Instructions:

1. Flatten the bag. Cut off the handles and the bottom. Cut along both sides to split the bag into two plastic sheets. (RECYCLE THE REST)
2. Gather the center of the plastic sheet into a tiny balloon to form the head. Secure the balloon with thread— not too tightly. Leave a small opening in order to pour some water into the “head.”
3. The remaining plastic, below the tied thread, will be the jellyfish's tentacles. Cut from the bottom edge up to the head to make about eight to ten tentacles. Cut each tentacle again into three or four smaller pieces. Trim to make some longer and shorter tentacles.
4. Fill the head with water — leaving a little air inside to allow the jellyfish to float — and then tighten the string.
5. Fill up your water bottle. Then put your jellyfish in the bottle head first, along with a few drops of blue food coloring. Screw on the cap and shake lightly. Make sure the cap is properly closed and tight before you give it to the student
6. Encourage your kids to turn the bottle upside down— they'll be surprised to see the jellyfish move every time they turn the bottle.

7. Talk about the physical similarities between a plastic bag and a jellyfish in water. What animals eat jellyfish for food (fish, zooplankton)? What might happen to a sea turtle who sees a plastic bag in the water and thinks it is a yummy jellyfish (clogs stomach)?
8. Encourage your students to recycle by dropping off plastic bags at a local grocery store

Jellyfish Beach Comb:

Materials: bucket and a plastic bag

Instructions:

1. Walk along the water to find washed up jellies
2. Discuss life style and species
3. Discuss nematocysts and how stinging cells work
4. Make the point that peeing on a sting is NOT how to help it
5. Put jellies in the bucket, are they dead? Are they alive? Why did they wash ashore?
6. Add a plastic bag to the bucket and move onto the next activity, then come back and ask them to identify which is the bag and which is the jellyfish
7. Ask, is it easy for turtles to tell the difference? (turtles have a hard time differentiating plastic bags from jellyfish so it is important that they are recycled or avoided all together)

Jelly Crossing (basically sharks and minnows)

1. Have one person be the jellyfish in the middle
2. Line up students on one side and have them cross
3. The person in the middle can only move the way the wind is blowing
4. As more people get tagged, more people join the middle until no one is left
5. Discuss jellyfish aggregations, postulate on why they occur, connect it back to the wind lesson

Cnidaria Trivia

1. As a wrap up for the day, go over some trivia questions to see how much the students



Cnidaria Trivia

1. What are cnidarians? (Circle one)
 - a. Amphibians
 - b. Crustaceans
 - c. Fish
 - d. Insect larvae (young insects)
 - e. Molluscs (mollusks)
 - f. None of the above
2. Put an "X" or checkmark in front of all the animals below that are classified as cnidarians.

<input type="checkbox"/> Clams	<input type="checkbox"/> Sea anemones
<input type="checkbox"/> Corals	<input type="checkbox"/> Sea slugs
<input type="checkbox"/> Jellyfish	<input type="checkbox"/> Starfish
3. Cnidarians are:

<input type="checkbox"/> Carnivores
<input type="checkbox"/> Herbivores
<input type="checkbox"/> Omnivores
4. Mark all the things below that cnidarians eat.

<input type="checkbox"/> Algae	<input type="checkbox"/> Sea turtles
<input type="checkbox"/> Fish	<input type="checkbox"/> Sea grass
<input type="checkbox"/> Zooplankton	<input type="checkbox"/> Sea grass
5. All cnidarians have nerves and muscles. Scientists believe they are the organisms that evolved these amazing adaptations that all animals inherited.

<input type="checkbox"/> True
<input type="checkbox"/> False
6. All cnidarians have a mouth and a stomach.

<input type="checkbox"/> True
<input type="checkbox"/> False
7. All cnidarians have **cnidocytes**—special cells at the end of their tentacles. These contain **nematocysts** that are like tiny harpoons with toxins that are used to capture prey and protect themselves.

<input type="checkbox"/> True
<input type="checkbox"/> False

retained:

2. Answers
 - a. None of the above

- b. Corals, jellyfish, sea anemones
- c. Carnivores
- d. Fish, zooplankton
- e. True
- f. True
- g. True