

Human Impact Lab: Coral Reefs

Loggerhead Marineline Center

Loggerhead Marineline Center is an ocean conservation organization and sea turtle hospital located adjacent to one of the most important sea turtle nesting beaches in the world. The Center features an on-site campus hospital, research laboratory, educational exhibits and aquariums, and also operates the Juno Beach Pier, which hosts world-class angling and sightseeing. The Center's conservation team works with 76 local and international organizations across six continents to form partnerships and share conservation initiatives and best practices that are core to its mission of ocean conservation. The Center is expanding and has launched its Waves of Progress capital expansion campaign, designed to accelerate and amplify LMC's conservation and education impact.

Our mission is to promote conservation of ocean ecosystems with a special focus on threatened and endangered sea turtles. Our vision is to be recognized locally and internationally as the leading authority in sea turtle education, research and rehabilitation.



Lesson Objectives

- I can describe why coral is important.
- I can describe how to help protect coral.
- I can observe the differences between hard and soft corals.

Vocab

- Coral - marine invertebrates, important reef builders that inhabit tropical oceans and secrete calcium carbonate to form a hard skeleton
- Runoff - Surface runoff is the flow of water that occurs when excess water flows over the Earth's surface.
- Symbiotic - type of a close and long-term biological interaction between two different biological organisms
- Zooxanthellae - term for single-celled dinoflagellates that are able to live in symbiosis with diverse marine invertebrates including demosponges, corals, jellyfish, and nudibranchs
- Polyp - Coral reefs are built by and made up of thousands of tiny animals—coral “polyps”—that are related to anemones and jellyfish.

Resources

Test Your Knowledge!

<https://form.jotform.com/201204044468143>



Visit Marinelife.org to learn more about Loggerhead Marineline Center!

Virtual Dive

Directions: Use the links provided to explore virtual dives on reefs from the Florida Keys! See if you can find the following items in a virtual underwater scavenger hunt!

Virtual Dive: <https://sanctuaries.noaa.gov/vr/florida-keys/>



Sergeant Major

Image:
<https://reefguide.org/carib/sergeantmajor.html>



Barracuda

Image:
<https://reefguide.org/carib/pixhtml/barracuda5.html>



Brain Coral

Image:
<https://reefguide.org/carib/boulderbraincoral.html?search=brain+coral&area=caribbean>



Sea Fan

Image:
<https://reefguide.org/carib/pixhtml/commofan5.html>



Tube Sponge

Image:
<https://reefguide.org/carib/pixhtml/yellowtube1.html>

DIY: Coral Reef Sensory Bins

Directions: Use the instructions and resources supplied below to create your own sensory bins at home! Sensory bins with items collected from nature or with items from around the house are a great way to explore textures and colors!

- **Sample Materials List**

- Base Materials
 - Rice, Beans, Sand, Shredded Paper, Pasta, Marbles, Water Beads, etc.
- Tupperware or Storage Bins
- Items to place in bins (TIP: choose a theme for each bin to maximize learning potential!)
 - Seashells
 - Fish toys
 - Coral
 - Rocks
 - Ocean animals
 - Any other items safe for supervised play!

1. Choose the desired bin size and base material for the sensory bin(s).
2. Come up with a theme (like coral reef!) for each bin, this helps maximize the learning your child can get from sensory play.
3. Place several items that fit your theme in each bin.
4. Make sure to supervise during their time playing with the bins – you could even ask questions like “can you show me something smooth?” or “are any of these items brown?”



Images: <http://funprojectsforyourkids.blogspot.com/2015/05/coral-reef-sensory-bin.html>