

Under the Sea

Pre and Post-Program Activities

Grade Level: 1–2

Next Generation Sunshine State Standards

- SC.1.L.14.1; SC.1.L.17.1; SC.1.N.1.1
 - SC.2.L.17.1; SC.2.L.17.2; SC.2.N.1.1
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Program Overview

The ocean is home to amazing creatures big and small! We'll explore the unique habitats under the sea and learn how animals survive in this salty world. Discover how all life on earth is connected to the ocean and how we can work together to keep the ocean clean and healthy.

Learning Objectives Students will be able to:

1. Recognize that all living things need the basic necessities of air, water, food, and space.
2. Raise questions about the natural world through investigation, and generate appropriate explanations based on those explorations.
3. Understand that organisms living in different parts of the ocean have different adaptations in structure and behavior, which help them to survive in their habitat.

Pre-Program Activity 1: Living Things in our Ocean

Duration of Activity: 45 minutes

Follow the link to Ocean Life for Kids:

<http://web.calstatela.edu/faculty/eviau/edit557/oceans/linda/loceans.htm>

- Click ‘Let’s Start!’ (will take at least 15 minutes to go through website). Explore as a class.
- Explain each creature found in the ocean, and the characteristics they all have.
- After each explanation click the “Answer Questions” link and answer the questions.
- Do so for each of the 8 creatures.

Discuss with the students what they learned about living things in our oceans.

- Do they breathe air?
- Do they need food and water to survive?
- What are some foods that they consume?
- Do they need space?
- Include how they are similar to humans; we all need air, water, food and space to live.

Pre-Program Activity 2: Layers of the Ocean

Duration of Activity: 45 minutes

Watch either of the ‘creatures within the layers of the ocean’ videos:

<https://www.youtube.com/watch?v=0VhcHV1uuVo> (2:40) *poor sound quality*

<https://youtu.be/gReciwVEAxI> (watch from ~1min – 4:25)

Discuss the 4 layers with the students:

- Sunlight zone- top layer of the ocean, and receives the most light
- Twilight zone- second closest to the sun,
- Midnight zone- far away from the sun and very cold
- The Abyss- very dark and cold, with very few living things

What kind of living things will you find in the sunlight zone?

- Fish, whales, sharks, dolphins, seahorses, scallops

What kind of living things will you find in the twilight zone?

- Clams, eels, crabs, jellyfish, lobster, octopus

What kind of living things will you find in the midnight zone?

- Crabs, some fish, and sea cucumbers

What kind of living things will you find in the abyss?

- Giant squid, deep sea angler fish

Activity: Drawing the layers of the ocean

Materials: markers, crayons/colored pencils, paper

Directions:

1. Have students work individually or in groups and give each student/group a large sheet of paper and coloring utensils
2. Have them draw 4 layers horizontally on the paper
3. Label each layer from closest to the sun (top of paper) to the ocean floor- each layer will be progressively darker
4. Have students draw the animals that live in each layer of the ocean

Post-Program Activity 1: Pollution “Bumper Stickers”

Duration of Activity: 45 minutes

Directions:

1. Discuss the effects pollution has on our environment. Remind the students that pollution is anything that harms people and the environment, and that all living things cannot survive without clean air, water, and land.
 - Harms animals
 - Dirties water
 - Dirties air
2. Discuss the ways that we can prevent pollution
 - Recycle
 - Don't dump harmful things down the drain or into the waterways
 - Don't litter
 - Don't release balloons

3. Have students take out coloring utensils and a sheet of paper. Have them create a “bumper sticker” of ways in which they can help stop pollution (Example- No Littering, No Dumping, Recycle). Have them share their ideas with their classmates, and explain how they will help stop pollution.
4. For an added effect, have students take a Pledge to help stop ocean pollution and tell others what they can do. Have all students sign the Pledge and hang it up in the classroom.

Post-Program Activity 2: Ocean Animals

Duration of Activity: 45 minutes

Directions:

1. Review some of the ocean animals that students learned about during the Conservancy program, and ask students to name them.
 - Bottlenose dolphin
 - Sea turtle
 - Sea Star
 - Sea urchin
 - Horseshoe Crab
 - Jelly fish
 - Conch
2. Discuss the traits these animals have that allow them to survive in their habitat.
 - Dolphins communicate under water
 - Conch have hard shells for protection
 - Fish have gills and travel in schools for protection
 - Sea turtles have flippers
 - Sea urchins have spines for protection
3. Have students take out a sheet of paper and draw an animal they learned about, and write about what trait they have to allow them to survive in their habitat, or what they need in order to live (water, food, air, space).
4. Have students share their work with the class.