

# Kids 'R' Kids Mini Camp



**Marine Biology Club**



# Marine Biology Club

## Introduction

Welcome Future Marine Biologists! Marine biologists study many things including marine ecosystems and the evolution of organisms underwater. Marine biologists research sea animals and continue to discover new sea creatures along the way. They bring awareness to what is threatening ocean sea life. Let's work together to protect sea life as we explore the ocean!



# Week 1 - Hidden Treasures

## Materials

- internet access
- chart paper
- marker
- variety of paint
- sponges cut into different sizes
- paper

## Discussion

Why is Marine Biology interesting to you? What is your favorite sea animal or plant and why? Write down the future biologists list of favorite sea animals.

## Teachers

The ocean covers over 65% of the earth's surface. Share the National Geographic Kids Top Ten Ocean Facts

<https://www.natgeokids.com/uk/discover/geography/general-geography/ocean-facts/>

## Instructions

1. Watch Octopus Camouflage Video - <https://www.youtube.com/watch?v=eS-USrwuUfA>
2. An octopus can camouflage and hide in plain sight. Share the pictures of the octopus and cuttlefish below. Using the sponges to paint, create a painting that shows your sea creature hiding in plain sight. The sponge will add fun textures. See if your fellow marine biologists can find what is hidden in your painting.



# Week 2 - Cold Waters

## Material

- internet access
- one large bowl filled with water and ice cubes
- paper towels
- a large container of shortening

## Discussion

What is a marine biologist? Watch the two videos explaining what a marine biologist does:

<https://www.youtube.com/watch?v=rThDFJFaRow>  
<https://www.youtube.com/watch?v=BbVASV30vVc>

As future biologists, we will explore how warm-blooded animals in the ocean stay warm in the freezing underwater temperatures. Seals and sea lions are mammals that have a layer of fat to keep them warm, known as blubber. Remember to wash hands before and after the experiment.

## Instructions

1. Explore the freezing temperatures in the bowl of ice water by having campers place a finger in the bowl, which represents the sea lion in the ocean, and removing it. If the sea lion did not have a layer of blubber, it would feel how cold the freezing temperatures are as the camper's finger does being placed in the ice-cold bowl of water.
2. Now that we know how cold the water is by touch, have the camper's dry their fingers off and cover finger in a thick layer of shortening, which represents the

3. blubber on a sea lion. Place the finger covered in the shortening back into the cold water to see how the shortening creates insulation and keeps the finger warm in the ice-cold water.



# Week 3 - Layers of the Ocean

## Material

- internet access
- Markers
- honey
- dish soap
- vegetable oil
- chart paper
- clear cylinder container
- syrup
- water with a drop of any food coloring

## Discussion

How many layers does the ocean have? The ocean has five layers also known as zones that include the sunlight zone, the twilight zone, the midnight zone, the abyss, and the trenches. Watch the video explaining the five layers of the ocean -

<https://www.youtube.com/watch?v=1ArwPfNgSKE>

## Instructions

1. In equal amounts for each layer, slowly pour the five items one at a time into the clear cylinder container representing the ocean zones in the order listed: honey, syrup, dish soap, water with a drop of food color of your choice, and vegetable oil.
2. As you observe how the layers stack on top of each other, discuss and write down on chart paper the sea animals in each of the zones.

**Sunlight Zone:** sharks, whales, and sea turtles

**Twilight Zone:** squid, cuttlefish, swordfish, and tuna fish

**Midnight Zone:** anglerfish, large whales, dumbo octopus, and vampire squids

**Abyss Zone:** sea pig, sea spider, and deep-water squid

**Trenches:** sea cucumber, tubeworm, and snail fish



# Week 4 - Marine Conservation

## Materials

- internet access
- two cardboard boxes
- construction paper
- glue
- markers
- scissors

## Discussion

Why is it important to take care of the ocean? What can be done to help stop the extinction of marine species? Share that the marine plants produce about 70% of the oxygen we breathe.

## Instructions

1. Gather together and watch video "A Whale's Tale"  
<https://www.youtube.com/watch?v=xFPoIU5iiYQ>
2. Create two creatures out of cardboard boxes that enjoy eating plastic or paper. The two cardboard boxes designed will be recycling bins that encourage classroom recycling. As a group, decide on a fun name for each recycling bin to represent what items the bin will be used to recycle.



# Week 5 - Dive and Match

## Materials

- scissors
- internet access

**Preparation:** Print the “Dive and Match Board” and “Dive and Match Pictures” for each future marine biologist. Print one teacher answer sheet. Preview video.

**Discussion:** Ask the future marine biologists to share cool facts about sea animals. Watch the video about Moray Eels: <https://www.youtube.com/watch?v=jaibHLbcqb8>

## Instructions:

1. Give each future marine biologist a “Dive and Match Board” and “Dive and Match Pictures”. Let the future marine biologist cutout the “Dive and Match Pictures”.
2. Gather together and read each description and match the pictures to the description.
3. Once the future marine biologists have attempted to guess the answers, review the correct answers as a group.

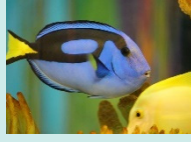
Dive and Match Board		
I have a snake like body. I can generate a shock.	I can easily camouflage myself in seaweed.	I am flat. I have no bones. I have a venomous barb.
I am boxed shape. I can be found in coral reefs.	I enjoy swimming in waters that are clear.	I am full of vibrant colors. I can change my color and shape.
I have a snout shaped like a saw, and a body that looks like a shark.	I have razor sharp teeth. My name means fish tooth.	I am known for swimming very fast. I can grow to be six feet or longer.
I am orange, black, and white. I am immune to different toxins.	One of my colors includes electric blue.	I am a large mammal that lives in the ocean.

## Dive and Match Pictures

**Sawfish**



**Blue Tang**



**Piranha**



**Leafy Sea Dragon**



**Stingray**



**Parrotfish**



**Queen Angelfish**



**Boxfish**



**Barracuda**



**Clownfish**



**Whale**



**Moray Eel**





## Teachers Answers Dive and Match Board

### Moray Eel

I have a snake like body. I can generate a shock.



### Leafy Seadragon

I can easily camouflage myself in seaweed.



### Stingray

I am flat. I have no bones. I have a venomous barb.



### Boxfish

I am boxed shape. I can be found in coral reefs.



### Blue Tang

I enjoy swimming in waters that are clear.



### Parrotfish

I am full of vibrant colors. I can change my color and shape.



### Sawfish

I have a snout shaped like a saw, and a body that looks like a shark.



### Piranha

I have razor sharp teeth. My name means fish tooth.



### Barracuda

I am known for swimming very fast. I can grow to be six feet or longer.



### Clownfish

I am orange, black, and white. I am immune to different toxins.



### Queen Angelfish

One of my colors includes electric blue.



### Whale

I am a large mammal that lives in the ocean.



# Week 6 - I Pledge to Protect Our Ocean

## Materials

- different types of beads to create a bracelet
- elastic bracelet string
- shell beads
- chart paper
- markers

## Discussion

As a group, discuss creating a bracelet and pledge that will represent protecting our oceans. Write the pledge on the chart paper. Discuss what will be done moving forward to continue protecting our oceans. (Example: Recycling plastic at home.) Ask the campers to explain their bracelet design. (Example: Blue beads represent the ocean; green beads represent the turtles.)



## Instructions

1. Watch Video Kids Take Action Against Ocean Plastic  
<https://www.youtube.com/watch?v=hKFV9IquMXA>
2. Using the bracelet materials gathered, create a bracelet that represents the group pledge.