

Students of the Sea Education Program by Dolphin Project & Empty the Tanks

Marine Life & Our Oceans - A Lesson Plan for Elementary School Classrooms

BIG IDEA: Students will learn about our oceans and marine life. We will talk about a few specific animals and what is causing them harm in the ocean. We will discuss pollution issues and how they can help. The end of the lesson is an activity where the students make a Pledge to Ocean because our goal is get young people to say, *I am saving our oceans, for my future*. This presentation is intended to be interactive so the students can participate and join in with the conversation.

Objective

- The ocean
- Marine life
- Plastic pollution
- How to help

Materials

- Downloaded electronic slideshow presentation provided by Dolphin Project and Empty the Tanks.
- Match the Fact to the Animal worksheet
- Word-search worksheet
- Coloring pages
- Craft paper or blank construction paper
- Crayons or coloring pens

Take Home:

Students of the Sea sticker
Save our Coral Reefs literature
Saving the Oceans as a Family literature

*please contact rachel@dolphinproject.com if you would like some of the take home materials mailed to you. The literature items are available to download.

Lesson

**This lesson plan follows the electronic slide show presentation. Slide titles/indicators are in bold.

Questions for the students -

1. What do you know about our oceans?
2. Do you have a favorite ocean animal?

The ocean - 2 slides

- The world's oceans cover 3/4 of the earth
- We live on a big, blue planet
- The oceans have the greatest diversity of life on earth. The largest habitat for plants and animals

Dolphin - mammal

- There are 33 species of dolphins found all over the world.
- Only 3-4 feet when they are born (close to the height of the students)
- Eat a variety of food like fish, squid, and invertebrates
- When they sleep, half of their brain stays awake so they can breathe at the surface and not drown

Whale shark - fish

- Largest fish on the planet
- They can grow up to 40 feet - the size of your school bus!
- Their mouths can open 3 feet - but can't swallow you
- They are filter feeders which means they swim with their mouths open, using it as a suction to vacuum up food. They can filter out nutrients as small as the tip of your pencil

What is the difference between a fish and a mammal?

Humans are mammals so those animals will breathe the same air as we do.

Sea Lion - mammal

- Called "sea dogs"
- Have visible ear flaps
- Large flippers that help them "walk"
- Males are much bigger than females, especially in the head and neck

Harbor Seal - mammal

- Have large eyes to help them see underwater
- Don't have visible ear flaps
- Have smaller flippers and wriggle on their bellies to move around on land
- They breathe out before they dive underwater, unlike us when we take a big breath of air in

Hammerhead Shark - fish

- Shape of their head and placement of their eyes gives them better vision in the ocean and allows them to scan for food more easily
- Can be up to 20 feet long - half the size of your school bus
- Eat small fish, octopus, squid, and crustaceans
- Can live 20-30 years in the wild

Orca/Killer Whale - mammal

- Actually a dolphin and not a whale and is the largest dolphin
- Like small dolphins they live in a family group called a pod
- Can weigh around 12,000 lbs which is about 3 minivans put together
- Males can have a dorsal fin that is 6 feet tall (compare to your height)
- Some eat fish and some eat seals and sea lions, and other small animals

Octopus - Invertebrate

- Invertebrate which means no spine
- They have no skeleton so they are very flexible and can fit into small cracks and crevices (can even fit themselves into a water bottle)
- Have 8 long arms
- They can change their color to blend in with their surroundings and shoot out an ink like fluid from their bodies when threatened.
- They can also lose an arm when escaping a predator and it will grow back

Other Marine Animals

- A lot of animals live in and around the ocean. They call the ocean home.
- Puffin
- Sea Stars
- Gull
- Turtle
- Crab

Jellyfish - Invertebrate

- Not fish despite their name
- They have been on the planet since before the dinosaurs
- They have no brain, heart, bones, or blood, but have a mouth in the middle of their body
- Have tiny stinging cells on their tentacles to stun their prey so they can eat
- They eat small fish, shrimp, crabs, and small plants

Plastic Bag

- This animal looks a little funny doesn't it?
- There is a lot of trash in our oceans and it is hurting all these cool animals we just talked about.
- Turtles love to eat jellyfish and since this bag looks like a jellyfish, do you think turtles get hurt by these bags sometimes?

Ocean Pollution

- What kind of trash do you think is in our oceans?
 - straws, plastic bags, toothbrushes, plastic bottles, food wrappers
- Why do you think so much trash is getting into our oceans?
 - we are using too much plastic, people are littering

How Can You Help?

- Let them give you their ideas
- Use less plastic (bottles, straws, bags)
- Clean up trash when they see it
- It is a global responsibility and we must all help.

Kids Cleaning Up The Beach

- Picking up trash or going to a beach clean up (doesn't have to be at a beach) can help the animals!
- Dolphin Project has an Annual Global Cleanup day that your class can join. Email us for more information about the date.

Pledge

- Have the students use the construction paper or the craft paper you supplied to draw a picture of the ocean, or their favorite marine animal and write their pledge to the ocean. How will they help the ocean and the marine animals?
- These pictures can all be hung up in the school hallway so other kids can see the messages.

Follow up projects or ideas

1. Have the students pick their favorite ocean animal and do a report and presentation on it. How is that animal impacted by ocean pollution and what they want to do to help. This teaches research and presentation skills.
2. Have the student go home and talk to their family about how they want to help the oceans as a family. What changes will they make together? They can present that to the class.