

OCEAN BLUE CREW

NeWSletter

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Introduction

Ahoy matey! It's the Ocean Blue Crew from the Clearwater Marine Aquarium here to give you some nautical knowledge about our incredible ocean.

Now that you are back to school, it is the perfect time to talk about our favorite schooling animal, fish! We will specifically explore sharks which are some of the largest species of fish. There are around 440 known species of sharks found around the world. The largest is the whale shark that can grow up to 40 feet long and weigh 20.6 tons! Opposite of the massive whale shark is the dwarf lantern shark growing to a maximum length of about 8 inches and weighing 0.5 ounces—about the same as 6 dimes! The oldest living shark is the greenland shark that has been recorded to be 272 years old, but are thought to be able to live up to 500 years old. Come join me and the Ocean Blue Crew in learning all about sharks and future events at Clearwater Marine Aquarium!

Let's dive in and start with **Captain Squid Squiddley**.



Captain Squid Squiddley CAPTAIN'S LOG

ARR ME MATEYS! Me and me crew have spent this summer sailing the ocean blue and now that we're back we wanted to share what we learned about the sharks with you.

Some of the most common sharks found here in Clearwater Bay include the bonnethead, black tip, and nurse sharks (like CMA's resident sharks Thelma and Louise).

The most common are the bonnethead sharks. Scientists discovered that 60% of their diet is actually sea grass. This makes them the first known omnivorous sharks! Omnivores eat both plant and animals. We do occasionally get bigger sharks in our local waters, like bull sharks and even hammerhead sharks.

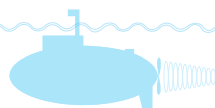
Let's go to Teacher Turtle and learn about sharks' amazing senses!

Teacher Turtle

Welcome back to school my guppies! Sharks have the same five senses we do—seeing, hearing, tasting, smelling, and touching. Depending on the species, the vision in sharks can be poor. One shark with exceptional sight is the hammerhead, because they have awesome 360° vision! This means they can see all around them. Sharks can hear much better than we can and use this to find their prey even if it is really far away. Their weakest sense is their sense of taste. It is mostly useful once they have taken a bite of something and they need to figure out if it is food or not. The way they use their sense of touch depends on the species. Nurse sharks have whisker-like barbels that they use to feel the sea floor to find their food. Smell is their strongest sense. They have nostrils that are only used for smelling, which are found on the underside of their snout and allow for directional smelling. This means as water enters their nostrils, they can tell exactly where a smell is coming from.

All fish, including sharks, have a gel-filled organ called the lateral line that feels vibrations. When anything swims, it sends out these vibrations and the lateral line will feel what is swimming near them. Hammerhead sharks make schools and they group up and stick together using their lateral line.

Now that you have learned all about sharks' senses, **Observation Otter** has a cool experiment to teach you about why sharks do not sink.

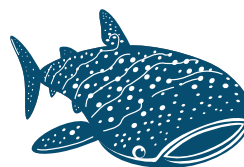


Observation Otter

When you put something heavy in water, you expect it to sink. Why is it that heavy animals like sharks do not? Our experiment today will look at how sharks keep themselves from sinking in the ocean.

You Will Need:

- Toilet Paper Roll Tube
- Crayons, Colored Pencils, or Markers
- Coins or Washers
- Tape
- Balloon
- Funnel (optional)
- 1/3 cup of vegetable oil
- Bucket of Water



Method

1. Draw your favorite shark onto one side of the toilet paper tube.
2. Tape the coins or washers onto the opposite side of the tube from your shark.
3. Place your shark into the bucket of water coin side down.
Does your shark float or sink?
4. Remove your shark from the water.
5. Fill the balloon with the oil and tie it off.
Put the balloon inside of the tube.
6. Place your shark into the bucket of water coin side down again.
Does your shark float or sink this time?

Unlike our livers that are pretty small compared to the rest of our body, a shark's liver is huge! The balloon you put inside of your shark represents their huge fatty liver. Sharks use their liver to control their buoyancy. Buoyancy is the ability of something to float.



CHEF SHARK HERE! TODAY I HAVE MADE A TRAIL MIX THAT INCLUDES SOME OF MY FELLOW SHARKS' FAVORITE FOODS FOR YOU TO ENJOY.

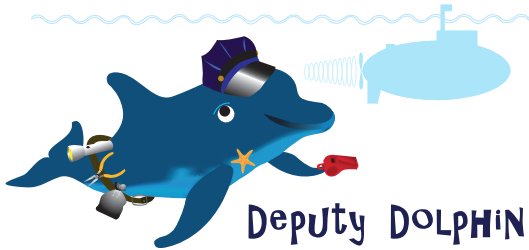
YOU WILL NEED:

- **Shark Gummy Candy**
Some species of sharks, including the great white, will eat other sharks!
- **Cheddar Whale Crackers**
Bull and tiger sharks are known to eat some smaller whales and dolphins.

- **Your favorite flavor of Goldfish Crackers**
Most sharks are carnivores and most of their diet is made up of various fish.
- **Veggie Straws**
About 60% of the diet of a Bonnethead Shark is seagrass.

- **Octopus Gummy Candy**
Hammerhead and nurse sharks are two of many species that like to eat squid and octopus.

All you need to do is mix these ingredients together to make a delicious shark-inspired snack!



Howdy partners! Deputy Dolphin here to tell you more about how **YOU** can help the world's sharks!

We may think of sharks as scary animals, but they are just misunderstood. You are more likely to be struck by lightning than bit by a shark, meaning sharks are not as scary after all.

People are the biggest threat facing sharks all around the world. Sharks are often fished for, but much faster than sharks can reproduce. Even when fishermen are not fishing for sharks, they can accidentally be caught.

The best ways for you to help is help teach others that sharks aren't scary. You can also go to www.seafoodwatch.com and make sure that the fish you are choosing is a sustainable option that have been fished for using proper fishing methods.



SHARK WORDSEARCH

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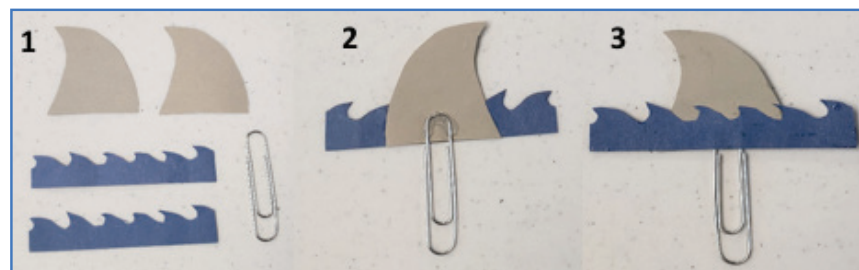
| | | | |
|------------|------------|-----------|----------|
| bonnethead | hammerhead | greenland | blacktip |
| lemon | nurse | tiger | bull |
| mako | whale | | |

Creative Crab



HELLO CRAFTY CRITTERS! We are going to show you how to make a cute shark fin bookmark that you can use when you sink your teeth into some jawesome books this school year!

1. Draw or trace 2 shark fins and 2 waves on construction paper. Cut 2 fins and 2 waves out of the construction paper.
2. Glue 1 shark fin to the middle of 1 wave using craft glue. With supervision, use hot glue to glue the paperclip to the back of the shark fin. Make sure to use only the tip of the paperclip so that it can still hold onto your book pages.
3. Once these are dry, use the craft glue to glue the second wave and fin to the opposite side.



You Will Need:

- Construction paper (We used blue and grey, but you can use whatever colors you want.)
- A large paper clip
- Scissors
- Craft glue
- Hot glue
- An adult to help supervise



Captain Squid Squiddley

ARR ME MATEYS! Captain Squid Squiddley: I want to let you know about some upcoming events here on dry land at the Aquarium! September we are celebrating our local community. Florida residents receive special admission pricing. There is more information on our website www.seewinter.com.

The first two weekends of October, we are celebrating Hope and Winter's birthdays! Come celebrate with us during our **Birthday Bubble Bash** and you can even bring them a birthday card.



Join us for **Winter's Trick or Tweet Halloween** celebration and come dressed in your spooky best see creepy crawly critters like bats, and enjoy Halloween! For more information, check out our website www.seewinter.com.

We hope to see you there!