# The Life of a Shark

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# Table of Contents

## What is a Shark?

A shark is a boneless fish. They are known to be very flexible because their skeletons are completely made up of **cartilage.**

Sharks are some of the fastest-swimming fishes around.

They are among the oldest animals on this earth.
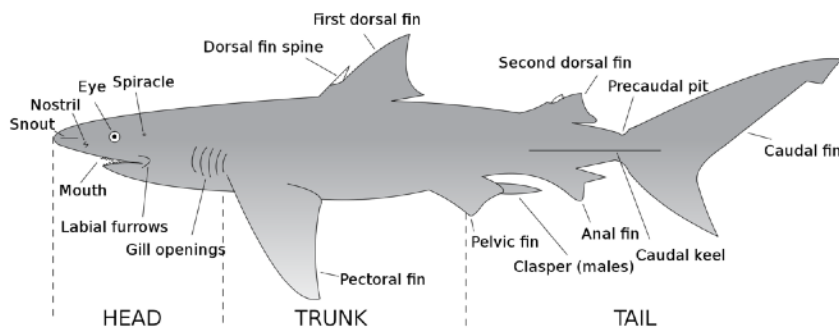
# Anatomy of Sharks

These fish have five to seven **gills** on the sides of their head and **pectoral fins** that are not attached to the head. Sharks also have a **dorsal fin** that is attached to the top of their body.



There are also dorsal fins that are located on the tail end of their body that help them move fast through water.



Skeleton of a shark- You can see where the dorsal fins and pectoral fins are located



First dorsal fin
Dorsal fin spine
Eye Spiracle
Nostril
Snout
Mouth
Labial furrows
Gill openings
Pectoral fin
Second dorsal fin
Precaudal pit
Caudal fin
Pelvic fin
Anal fin
Clasper (males)
Caudal keel

HEAD        TRUNK                    TAIL

# Shark Habitats

Most sharks live in the oceans all around the world because they have to live in **saltwater.**

There are a few types of sharks that can live in **fresh water**. The most popular is called the Bull Shark.

Sharks like to live in the open water or at the bottom of the ocean because they like to have space to swim freely.

Sharks usually live where there is **prey** and nutrients.

It is most common for sharks to live in warm water right off the beach shore. Some sharks do still live in cold waters.

Sharks usually travel alone and not in groups together because they enjoy being free in the waters.

# What do Sharks eat?

Since there are different sharks, they all eat different prey.

Most sharks will usually eat fish, squid, other sharks, seals, sea lions, dolphins, and small whales.

For example, hammerhead sharks like to eat stingrays and octopus.
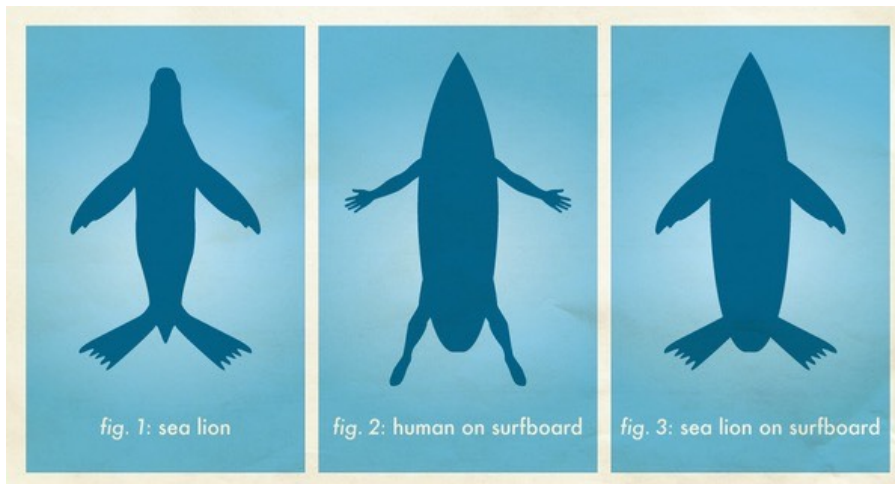


Hammerhead Shark eating a stingray

People think that Great White Sharks are scary because they happen to attack humans or surfers.



It is believed that this happens because the Great White Sharks think that the person on a surfboard looks like a seal, which is their favorite prey.



fig. 1: sea lion    fig. 2: human on surfboard    fig. 3: sea lion on surfboard

They get confused because the surfers look exactly like seals when they are hunting for prey so the attack.

## Shark Families

Mother Sharks:
- Mother sharks lay their eggs in a protective case so no other animals can kill them.



- Mothers usually leave their babies after they are born and do not take care of them.

- The mothers can have 1 to 100 babies at a time, but it depends on the type of shark.

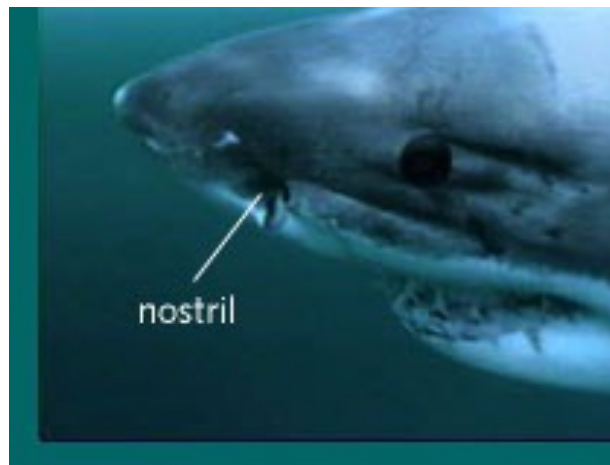- The baby sharks are called pups.

# Shark Senses

Sharks are known to have senses that are called **super senses** because they are successful predators.

## Smell:

Smell is the shark's most powerful sense. Most of the shark's brain is dedicated to their sense of smell.

Since sharks have a good sense of smell, they are able to smell prey from very far distances. They like the smell of blood, so when prey is hurt they know where to find them from the blood.



nostril

## Eyes:

Sharks have eyes that are very similar to cats' eyes.

They have a layer on their eyes that allows to them to be able to see in the water more clearly.

Because of this layer on their eyes they can hunt in clear or **murky** water.



Sharks also have a sense that allows them to feel **vibrations** in the water. These alert the shark that there is prey nearby.

## Fun Facts!

There are over 400 different species of sharks.

Sharks **wounds** heal quickly.

Sharks can smell a drop of blood in 1 million drops of water.

Up to 73 million sharks are killed a year for their fins.

Sharks were alive when dinosaurs were alive!

# Glossary

Cartilage: Material that feels rubbery.

Gills: An organ that allows the shark to breathe

Pectoral/Dorsal Fins: Body parts of sharks that help them swim quicker and help them from rolling over

Saltwater: Water that has salt mixed in it; what oceans are made of.

Freshwater: Water without salt; water that is found in rivers and lakes.

Prey: An animal that is hunted and killed by another animal.

Super Senses: Senses that are very good.

Murky water: Water that is unclear and dirty.

Vibrations:  A shaky motion that you can feel.

Wounds: An injury that cuts or breaks the skin like a cut.

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# Common Core State Standards

CCSS.ELA-Literacy.RI.3.1

Ask and answer questions to demonstrate understanding of a text, referring explicity to the text as the basis for the answers.

CCSS.ELA-Literacy.RI.3.7

Use information gained from illustrations (e.g., maps, photograph) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur.)

CCSS.ELA-Literacy.RI.3.10

By the end of the year, read and comprehend informational texts, including history/social studies, sciences, technical texts, at the high end of the grades 2-3 text complexity band independently and proficiently.

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