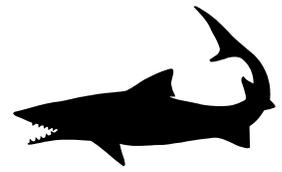


6-12



Sharks Field Investigation Log



There are 6 different species of shark in the exhibit. Identify 2 species based on appearances only (it's not important to know species names). Sketch each of these sharks and label the characteristics that identify each species.

1.

2.

How many sharks do you see that are swimming fairly constantly?

How many sharks do you notice that are resting or swimming less frequently?

What are some physical differences that you notice about these two species of shark?

In noticing these differences, explain how a shark's appearance can help it to survive.

Sharks are top or umbrella predators in the ocean ecosystem. If a species of shark preys primarily on squid, would the squid population benefit (long term) if that species of shark became extinct? Please defend your answer on the back of this sheet.

Please do not use
the tanks as a
writing surface!

Conserve

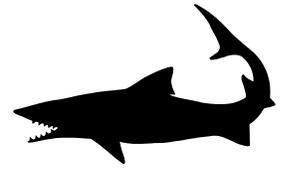
Care

Connect

Discover

Sharks

Teacher/Chaperone Guide



Before entering the shark exhibit area, make a prediction about the correlation between the dorsal fin size and the speed of the shark.

The larger the dorsal fin, the faster the shark's speed. If the student's original prediction was incorrect, you should see a revision for the next answer.

There are 6 different species of shark in the shark exhibit. Find 2 species based on appearances only (it's not important to know species names). Sketch these sharks and label the characteristics that separate each species.

Sketches should contrast overall body shape, size, fins, gills, color, eyes, etc. Parts that differ should be well-defined and labeled.

How many sharks do you see that are swimming fairly constantly?

There are three species of sharks that swim fairly constantly. They are the brown sharks, the black tip reef sharks and the sandtiger shark.

How many sharks do you notice that are resting or swimming less frequently?

There are four species of shark that are less active. The nurse sharks and the wobbegong are typically the least active species. The lemon sharks are often seen resting as well.

What are some physical differences that you notice about these two groups of sharks?

Students should notice differences in body shape, fin size, number of fins, location of eyes and mouth. The bottom dwelling sharks often have barbels (like a catfish's whiskers) for sensing prey in the sand.

In noticing these differences, explain how a shark's appearance can help it to survive.

The slower bottom living sharks are typically brown or mottled to help them to blend in with the sand and rocks. The more active sharks tend to be dark (various shades of grey) on their backs and light on their bellies. This helps them to blend in to the light above and darkness below. Fin size and location will affect speed and agility when swimming. Eye and mouth location determine they prey that each species of shark can most effectively target.

Sharks are top or umbrella predators in the ocean ecosystem. If a shark prey primarily on squid, would the squid population benefit (long term) if there were no longer any sharks? Why or why not?

Over the long run squid populations would not benefit from the loss of hammerhead sharks. Initially, with no sharks to eat them, squid population would rise drastically. However, the squid would eventually suffer with increased competition for food and/or space. Even though the hammerhead shark is their predator, the squid rely on the shark for long-term health of their population. It should be noted that other top predators that feed on squid would benefit from the loss of competition from the sharks, but an unprecedented increase in the population of any species can spell disaster for the balance of an ecosystem.

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