



ALIKE AND DIFFERENT

Comparing sharks and tropical fish



GRADES 4 - 6

MATERIALS

- clipboards

STANDARDS

- SCI.5.3.1
- SCI.6.3.1

OBJECTIVES

- Students will observe tropical fish at the zoo and compare them based on their observations.

BACKGROUND INFORMATION

- Twenty-five species of tropical fish are exhibited in the zoo's reef tank. These fish have internal skeletons made of bone. The huge variety of shapes and colors reflect how the fish hide, find food, and find mates.
- All fish breathe with gills. Oxygenated water passes over the gills and the oxygen moves into the blood stream.
- Sharks are fish, too. They have an internal skeleton and a backbone, but their skeleton is made of cartilage, rather than ossified bone. A cartilaginous skeleton gives the shark greater flexibility of movement
- Tiny sensors called *ampullae of Lorenzini* on the shark's snout detect the weak electrical fields given off by every animal – for example, a flounder buried in the sand.

PROCEDURE

- Have students observe the fish and sharks at the zoo and fill out the provided Venn diagram. They can use concepts from the idea bank or come up with their own ideas.

RECOMMENDED ASSESSMENT

- Discuss the observed similarities and differences with the students. What did they observe? Were there any ideas in the idea bank that were hard to place? What did they come up with themselves?
- Check students' papers for completion.





ALIKE AND DIFFERENT

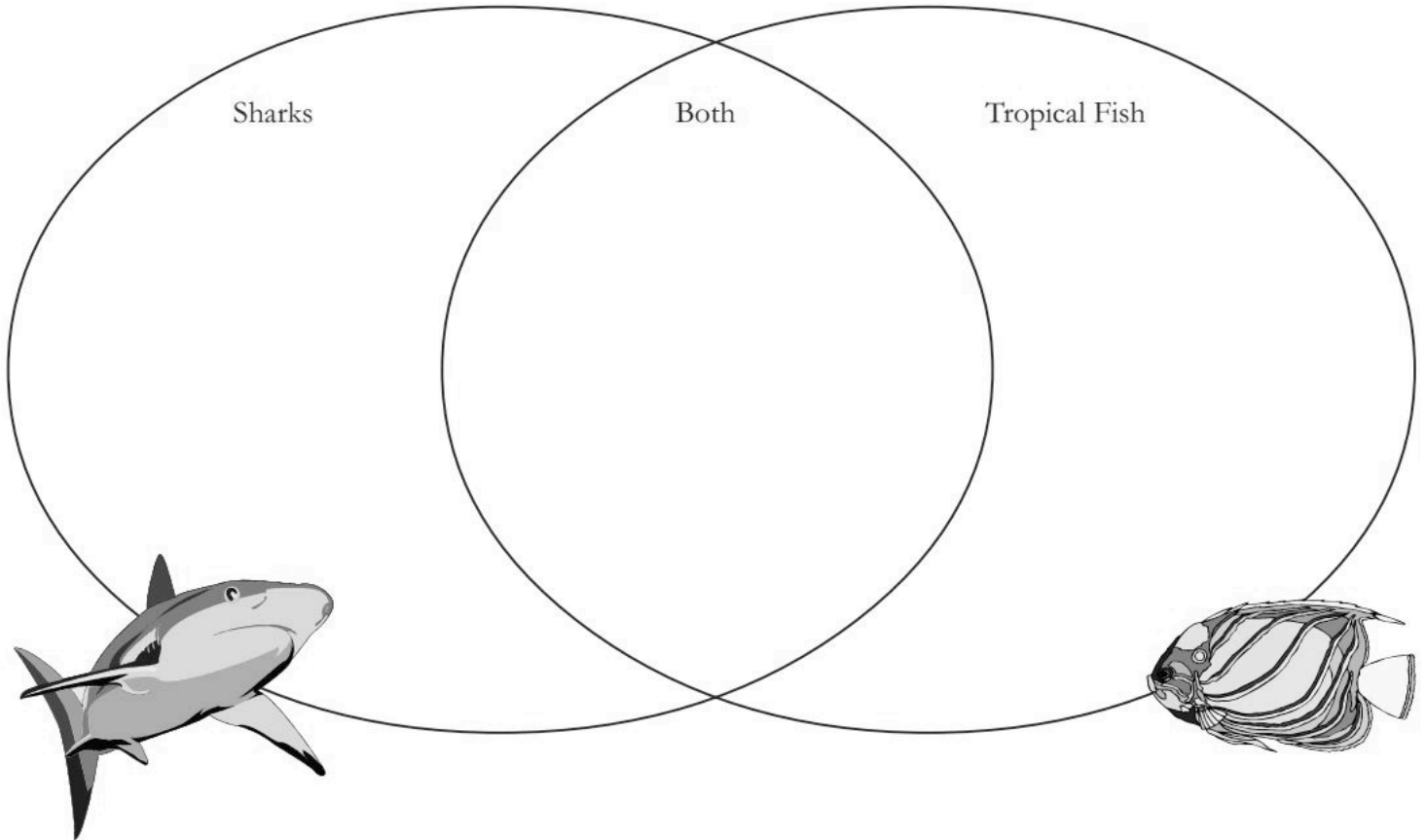
Sharks and Tropical Fish



Name _____

Sharks and tropical fish share many characteristics but are also different in several ways.

Use the idea bank below or your own original ideas to fill in the Venn Diagram. Use your knowledge of ocean life and add as many characteristics as you can.



IDEA BANK

Skeleton made of bone

Skeleton made of cartilage

Live in oceans

Eat fish

Eat plankton

Eat plants

Must swim constantly

Can stop swimming and rest

Breathe with gills

Can sense electric fields of living things

Colors provide camouflage

Found near coral reefs

Eaten by people

Some are endangered

Can you add different ideas of your own?

