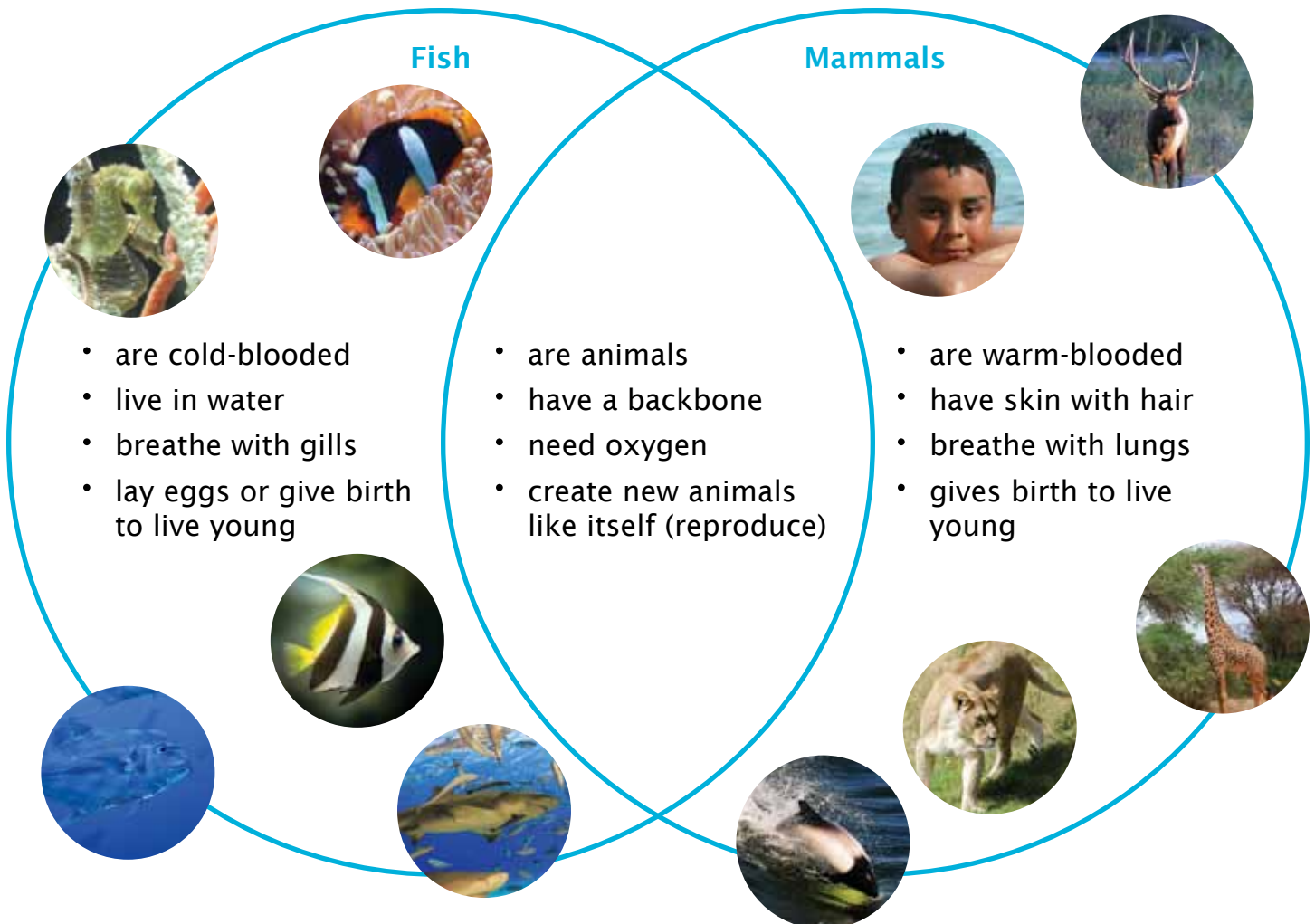


For Creative Minds

This For Creative Minds educational section contains activities to engage children in learning while making it fun at the same time. The activities build on the underlying subjects introduced in the story. While older children may be able to do these activities on their own, we encourage adults to work with the young children in their lives. Even if the adults have long forgotten or never learned this information, they can still work through the activities and be experts in their children's eyes! Exposure to these concepts at a young age helps to build a strong foundation for easier comprehension later in life. This section may be photocopied or printed from our website by the owner of this book for educational, non-commercial uses. Cross-curricular teaching activities for use at home or in the classroom, interactive quizzes, and more are available online. Go to www.ArbordalePublishing.com and click on the book's cover to explore all the links.

Venn Diagram: Fish and Mammals

A **Venn diagram** is made of overlapping circles and shows how two things are alike and different. In the Venn diagram below, one circle shows traits belonging to fish and the other shows traits belonging to mammals. In the middle, where the circles overlap, are traits that fish and mammals have in common.



Draw your own Venn diagram (or print the one in the online Teaching Activity Guide) to compare sharks and dolphins.

A World Without Sharks and Dolphins

A predator is any animal that hunts other animals (prey) for food. Predators are an important part of any food web. If the top predators disappear from a food web, it affects the entire ecosystem. What could happen if sharks and dolphins were not a part of the ocean food web?

Put the following events in order to spell the scrambled word.

E

Without as many small fish and algae-eaters, there would be nothing to slow the growth of algae. Algae are important to the ocean's health, but too much algae can smother coral reefs.

O

Sharks and dolphins hunt mid-size ocean animals, including squid, seals, stingrays, and large fish. If sharks or dolphins disappeared, these mid-size ocean animals would have fewer predators. Their populations would grow.

N

If the coral reefs and the animals they support disappeared, human fishers all around the world would not be able to catch as many fish.

S

If the fishers could not catch enough fish, many people would go hungry. Three billion people (almost half of the world's population) depend on seafood as part of their diet.

C

All of those mid-size ocean animals would need lots of food to eat. They would over-hunt the smaller marine life that feeds on algae, jellyfish, and plankton. The small-size ocean animals would start to disappear.

A

The coral reefs smothered by algae would get sick and die. Coral reefs are an important ocean habitat. They provide shelter and food for many ocean animals. If the coral reefs died, those animals would disappear as well.

Sharks

Match the body part labels to their location on the shark. Answers are below.

Dorsal fins: the fins on a shark's back, used to stabilize the body in the water

Eye: the organ on the front of the face that a shark uses to see

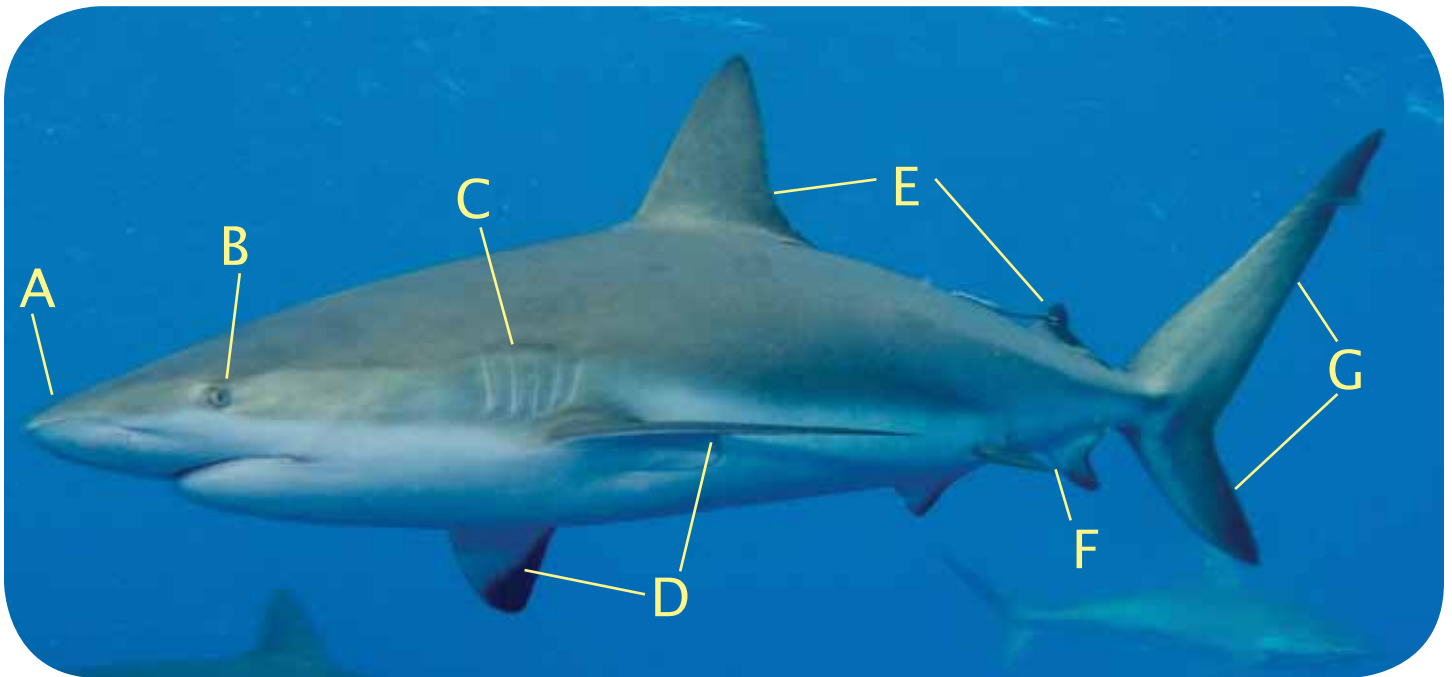
Gills: openings on a shark's sides that allow the shark to take in oxygen from the water

Pectoral fins: the fins at a shark's sides

Pelvic fin: the small fin underneath a shark's belly

Snout: the part of a shark's face that sticks forward from the body

Tail fin: the vertical fin at the back of a shark's body



Animals use senses to learn about the world around them. Sharks have a special sense called **electroreception**. Just like many animals sense light or sound, sharks sense electricity.

When an animal moves, its muscles flex. This creates a small electric charge. Electricity travels easily through salt water.

Sharks sense the electricity in the water to find their prey.

Dolphins

Match the body part labels to their location on the dolphin. Answers are below.

Rostrum: the part of a dolphin's face that sticks forward from the body

Blowhole: opening on a dolphin's back that allow the dolphin to take in oxygen from the air

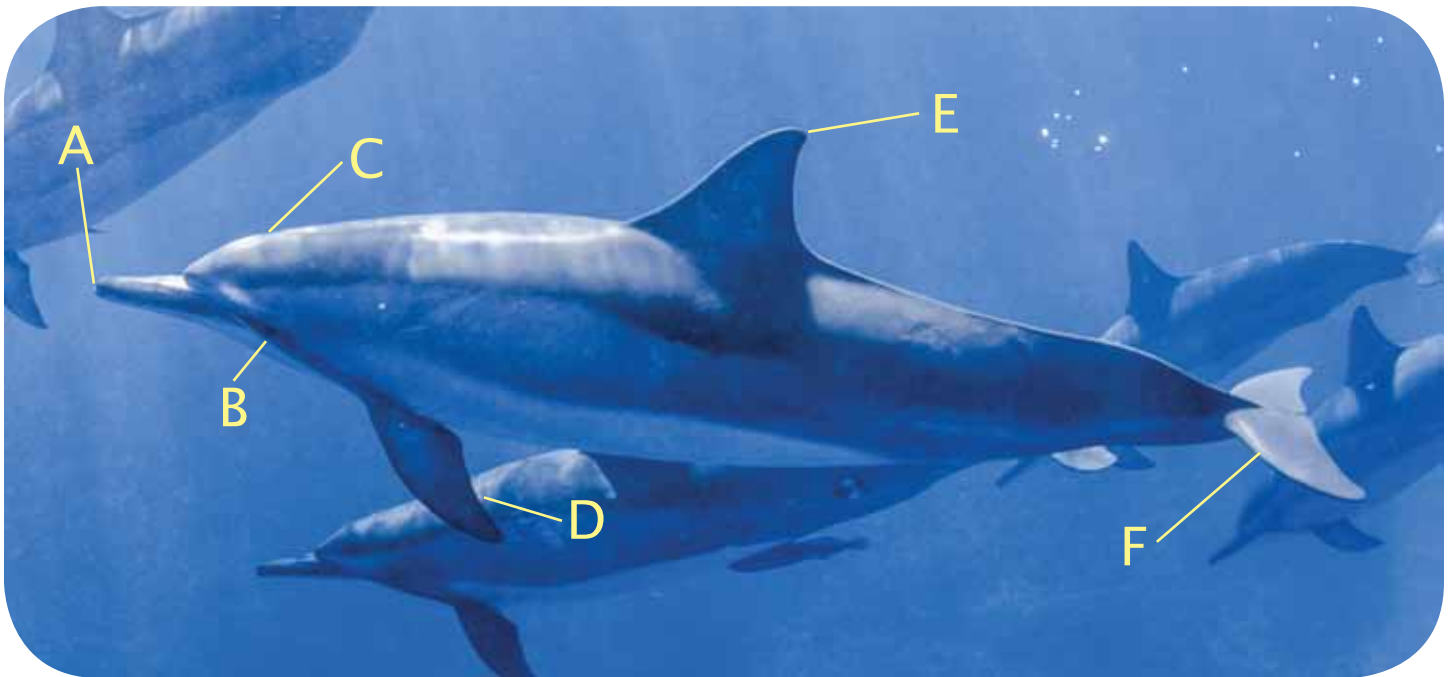
Dorsal fin: the fin on a dolphin's back, used to stabilize the body in the water

Eye: the organ on the front of the face that a dolphin uses to see

Flukes: the horizontal tail at the back of a dolphin's body

Pectoral fins: the fins at a dolphin's sides

Look at the shark body parts on the previous page. What body parts do sharks and dolphins have in common? What body parts are similar but have different names? What body parts do sharks have that dolphins don't, or vice versa?



Dolphins use **echolocation** to map their surroundings. They rely heavily on their sense of sound. Dolphins make a high-pitched squeaking noise and then listen for the echoes.

Sound moves in waves. When it hits an object, it bounces back. This is called an echo. The sound of the echo tells the dolphin what type of thing the sound bounced off. The time it takes for the echo to come back to the dolphin's ear tells it how far away the object is.

Dolphins use their sense of hearing to find their prey.