

Basics of Fish

Fish are residents of the water. They can be found in almost any type of underwater environment. Mistakenly, many people think all underwater animals are fish. That is not true! Whales, jellyfish, and starfish, for example, are not fish. So, what exactly is a fish? Fish have gills that they use to breathe air. They have a streamlined body and fins suitable for swimming. They are vertebrates - animals with a backbone. Lastly, most of them have scales for protection. Sharks, salmon, stingrays, and sailfish are all examples of fish. Then, why are whales, jellyfish, and starfish not in the fish family? Whales are not fish, because they are mammals - mother whales produce milk to feed their baby. Jellyfish and starfish are not fish, because they do not have a backbone.



All animals need oxygen to survive. How do fish get oxygen in the water? Fish are equipped with a pair of special organs called gills. Gills are normally on the two sides of a fish's head. They are made of a series of thin sheets or membranes. When fish open their mouth to take in water, they pump it to gills. Fish absorb dissolved oxygen as water passes through gill membranes. Once oxygen is taken out, water flows out through gill openings.

To be able to swim gracefully in the water, fish need fins. Fins are made of layers of skin supported by bony rods called fin rays. Generally speaking, there are four types of fins. The dorsal fin on a fish's back helps it to balance; the tail fin propels it forward; the pectoral and pelvic fins, coming in pairs, help it to steer up or down, and left or right.

Scales are another important feature of fish. Scales are hard, thin flakes that protect fish from hungry predators. Fish grow scales and add new layers throughout their lives. However, not all types of fish have scales. Eels, for example, have no scales at all. Their slippery skin makes them difficult to get a hold of. In addition to their protective scales, fish have a special sense organ called the lateral line to warn them of any incoming predator or obstacle. The lateral line, on both sides of the fish, detects vibrations in the water, and allows fish to swim in water of low visibility.

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Questions

_____ 1. Which of the following animals are fish?

- A. Jellyfish
- B. Starfish
- C. Whales
- D. Sharks

2. Jellyfish are not fish because they do not have _____.

Name _____



Date _____

_____ 3. What special organs do fish have so they can breathe underwater?

- A. Gills
- B. Lungs
- C. Fins
- D. Scales

_____ 4. The dorsal fin helps a fish to balance.

- A. True
- B. False

_____ 5. Which of the following statement about the lateral line is true?

- A. Fish use their lateral line to detect danger or obstacles nearby.
- B. Fish use their lateral line to attract mates.
- C. Fish's lateral line serves no specific function.
- D. Fish's lateral line is on the left side of its body.

_____ 6. Which of the following statement about fish is NOT true?

- A. The tail fin allows a fish to propel forward.
- B. Whales are mammals. They are not fish.
- C. All fish, including eels, have scales.
- D. Starfish are not fish because they do not have a backbone.