

# FISH ADAPTATIONS TO LIVE UNDERWATER

## PART 1: COMPREHENSION

Fish are animals that come in all body sizes, colors and shapes. Some are tiny and slender-bodied, others gigantic and tall-bodied. Their colors can blend in with the environment or stand out from it.

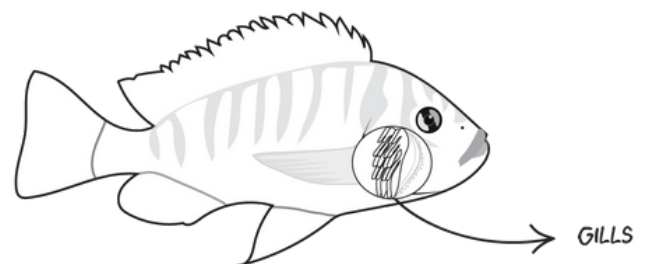
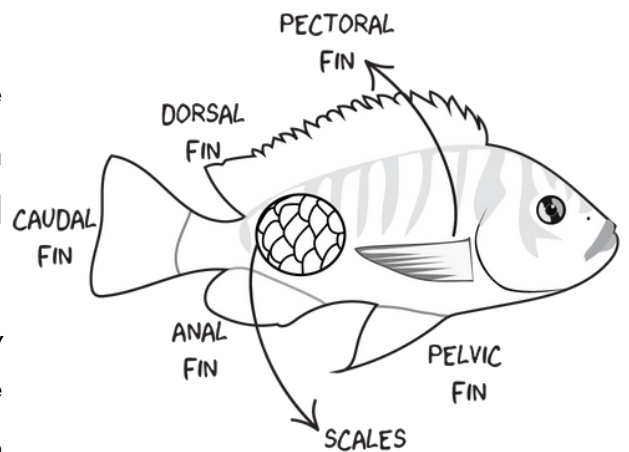
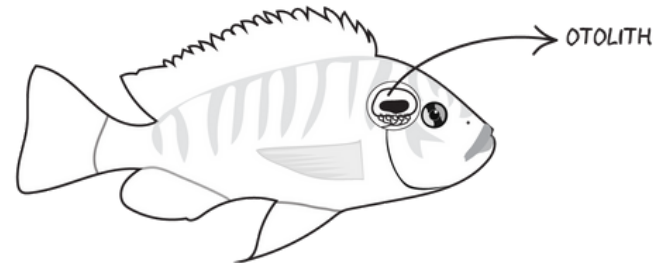
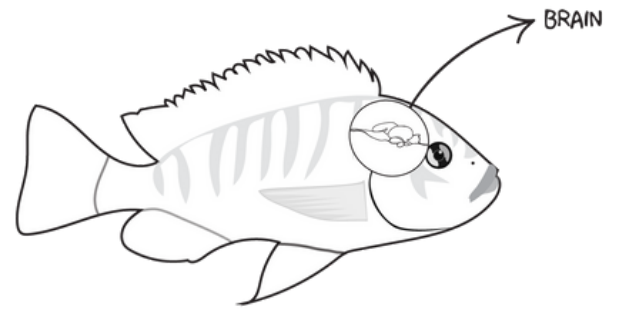
All fish are **vertebrates** which means that they have a bony skeleton and a **backbone** to support it. Fish also have mouths, nostrils, eyes, ears, and **brains** that allow them to thrive in the underwater world.

Curiously, fish have a little stone inside their ears called the **otolith**. This little thing helps them orient themselves in the water column using gravity.

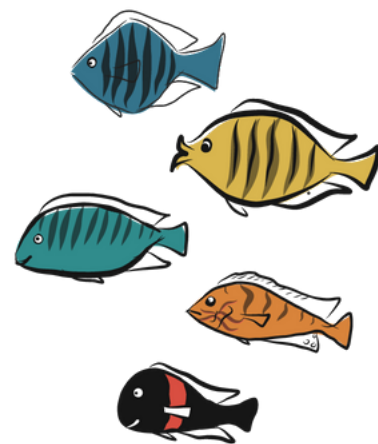
Multiple **scales** cover a fish's body and **mucus** is the name of the slimy layer that makes swimming in water easier, while also preventing infection and healing wounds.

The various **fins** in a fish allow them to move slow, fast and to turn underwater. A floating organ inside their bodies called the **swim bladder** helps them to stay afloat.

Fish are famously known for their ability to breathe underwater. They do so through their **gills**, which are soft filaments protected under gill openings on both sides of a fish's body. Fish first take in water through their mouths, then they pass this water through their gills filtering in **oxygen** and expelling **carbon dioxide**. This is how fish breathe through their gills.



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## PART 2: FILL IN THE BLANKS:

1. Fish are adapted to live underwater. Their \_\_\_\_\_ allow them to move slow, fast or turn in search for mates, food and shelter.
  
2. A fish's \_\_\_\_\_ moves around inside their ears helping them with orientation underwater.
  
3. Fish vary in color, body \_\_\_\_\_, and \_\_\_\_\_, and a few can even rapidly and reversibly change how they look!
  
4. Fish \_\_\_\_\_ protect their skin underneath and the abundant mucus they produce may make them difficult to capture.
  
5. Fish use a respiratory organ to breathe underwater called \_\_\_\_\_.
  
6. Some fish can gulp air at the water surface to absorb \_\_\_\_\_. This is possible through a connection between their gut and swim bladder.

## PART 3: ESSAY:

How can body color help a fish to stay alive? Hint: think of different places where fish are or use to hide underwater.

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Why do you think some fish swim in groups? Such group is called a school

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## PART 4: DRAWING A FISH

Fish can be simple to draw. In this area, draw four or five fish from your imagination or the drawings above. Try to name fish parts using the newly learned vocabulary and let's celebrate together all the varied colors, shapes and sizes across fish!

