

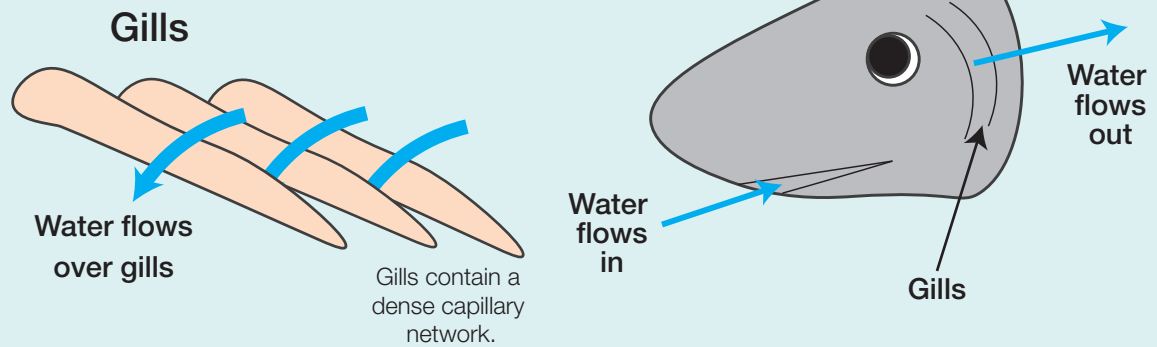
CELL BIOLOGY

WORKSHEET - EXCHANGE SURFACES (GILLS)



GILLS

Gas exchange between water and fish gills occurs when fresh water rich in oxygen flows into the mouth and flows out over the gills.



QUESTIONS

1. Where do fish obtain the oxygen that they need?

From the air

From the water

From their food

2. Fish pump water through their mouths and the out of slits located on the sides of their heads. Why is this necessary? Underline the correct answer.

- To maintain a concentration gradient of gases
 To keep the internal surfaces moist
 To reduce temperature of blood

3. Which specialised gas exchange organs are found in other animals such as birds, reptiles and mammals?

4. What special exchange organs in fish are designed to move gases in and out of the blood?

5. Which small blood vessels are responsible for picking up oxygen at gas exchange surfaces?

6. Which waste gas produced by the body cells of a fish moves from their blood out into the surrounding environment?

7. Sharks have to keep swimming, even when they sleep.
Can you think of a reason why?