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STUDY NOTES

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CLASS- VI (All Section)

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Science

CHAPTER: 9 How animals move

Today's Topic: The cockroach, fish and snake

The Cockroach:

A cockroach is a typical insect that can walk and climb as well as fly in the air. It has three pairs of legs that help in walking. The body of a cockroach is protected by a hard covering called an exoskeleton. This outer skeleton is made of different units joined together that permit movement. There are two pairs of wings attached to the breast. The breast muscles move the wings when the cockroach move. Cockroach also have muscles near the legs that are used to move the legs for walking.

The Fish:

The body of a fish is so designed that it can move through water with minimum resistance. The body is typically fat in the middle. The body is typically fat in the middle and tapers at both ends, which makes it **streamlined**. Water can flow around a fish's streamlined. Water can flow around a fish's streamlined body, allowing it to move fast in water.

Most fish have a bony skeleton in the middle covered with strong muscles. Fish swim by exerting force against the surrounding water. While

swimming, muscles make the front part of the body curve to one side while the tail part swings towards the opposite side. Then, quickly, the body and tail change directions, thus imparting a wavy motion to the body and pushing it ahead. A series of such motions make the fish swim forward, helped by the fins of the tail. Fish also have other fins on their body, which mainly help to balance it. The fins also act as rudders helping the fish to swim in a particular direction. Apart from fish, mammals, such as dolphins and whales, also swim in the same manner.

The Snake:

Snakes do not have arms or legs, but they have a long backbone and ribs. They have many thin muscles and their body is covered with scales. Snakes use their bodies in a special way to move. Most snakes slither on the ground by alternately flexing their body to the left and to the right. This is called lateral undulation, which results in a series of backward moving 'waves' making the body move forward. Snakes use this method for moving in water and on land.

Some snakes use the method of sidewinding for moving. The body segments oriented in one direction remain in contact with the ground. While the other segments are lifted up, resulting in a peculiar 'rolling' motion. This method of movement is used mainly by snakes, such as the viper and rattlesnake, which live in deserts where there are no rocks or objects to push against.

Heavy snakes, such as pythons, boas and vipers, use rectilinear locomotion. They lift the scales and move forward by pulling the body along with the scales. This is the slowest method by which snakes move.

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