

Board – CBSE

Class – 6

Topic - Body Movements

Q.1 Match the following:

i) Earthworm	a. A pair of feet and a pair of hands
ii) Fish	b. Rings in the body
iii) Cockroach	c. Fins
iv) Snail	d. Loops in the body
v) Birds	e. 3 pairs of legs
vi) Snake	f. Single muscular foot
vii) Human beings	g. Wings and feathers

Ans: i)-b, ii)-c, iii)-e, iv)-f, v)-g, vi)-d, vii)-a.

Q.2 State whether True or False. If false correct the statement:

- i. All living organisms can move on their own.
- ii. Organisms can move only parts of the body but cannot move the whole body from one place to another.
- iii. Movement of body requires the use of muscles
- iv. Bones cannot move on their own.
- v. Bones cannot join with other bones.
- vi. When contracted muscle becomes shorter.
- vii. A single muscle can move a bone in different directions.
- viii. Only animals with both bones and muscles can move

Ans

- i. False. Not all living organisms can move on their own. Some living organisms like plants cannot move on their own.
- ii. False. Organisms can move parts of the body and may also be able to move the whole body from one place to another by locomotion.
- iii. True
- iv. True
- v. False. Bones can join with other bones at joints
- vi. True.
- vii. False. A single muscle can move the bone in only one direction.
- viii. False. Animals without bones can also move.

Q.3 Define joint. Explain its importance.

Ans: Joints are parts of the body where two bones meet and join. Joints are important in allowing movement of body parts. Bones are strong and rigid structures that help in giving a framework and structure to the body. But they are not flexible. Therefore, to allow the bones and therefore the body parts to move, joints are important. Joints allow the bones to move by the action of muscles. Different types of joints in the body allow different types of movements.

Q.4 List the various joints in the human body with examples.

Ans: The important types of joints in the human body are:

- a) Ball and socket joint: found in the shoulder and hip joint.
- b) Pivotal Joint: Found in the neck connecting the head to the shoulder
- c) Hinge Joint: Found in the elbows and the knees
- d) Fixed Joints: Found in the skull.

Q.5 Explain how muscles work to cause movements in bones.

Ans: Muscles are soft contractile tissues that cause body movements by contractions.

Muscles contract to become short and stiff. This action pulls the bone and causes it to move.

Muscles work in pairs. When one of the muscles contracts the other one relaxes. The contracted muscle pulls the bone in one direction. To return the bone to the original position the other muscle of the pair contracts and the first one relaxes. This moves the bone in the other direction. This pair wise action is important as muscles can only pull and not push.

Q.6 Explain how a fish body is designed to swim in water.

Ans: Fish is an aquatic animal. It has a streamlined body. In this shape the head and the tails are smaller than the middle portion of the fish. This allows the water around the fish to flow easily. Fish body also has very strong muscles to allow easy swimming. The muscles in the front part curve to one side whereas the muscles of the tail curve to the other side. This causes the body to jerk and move forward. The muscles of the tail and fins enable the fish to maintain balance and direction.

Q.7 Why do snakes not move forward in a straight line?

Ans: The snake body is curved into many loops. The snake body contains many muscles that are interconnected with each other and to the bones of the skeleton. These muscles move each loop of the snake. This causes each loop of the snake to push forward by pressing against the ground. As the snake body consists of many such loops pushing and moving individually, snake body does not move in a straight line though it moves forward very quickly.

Q.8 What is meant by skeleton? What is the importance of skeletal structure? List the important parts of the skeleton.

Ans: The basic structural framework of the body composed of bones is called as the skeleton. The skeletal structure is important as follows:

- i) It provides the basic structural framework for the body.
- ii) It provides support for the different body parts.

iii) It provides protection for the internal organs.

iv) It helps in movement and locomotion.

The important parts of the skeleton are:

a) Skull: houses the brain, eyes, ears, nose and tongue.

b) Vertebral column: The backbone which supports the posture and shape of the body.

It also contains the spinal cord.

c) Rib cage: Consists of the ribs and the sternum. Protects the chest cavity and organs inside like the heart and the lungs.

d) Shoulder/pectoral girdle: Consists the shoulder blade, ball and socket joint for the attachment of the arm

e) Hip/pelvic girdle: Contains the ball and socket joint for the attachment of the leg. Also contains all the hip bones.

f) Limbs: Bones of the arms and the legs

Q.9 Compare ball and socket joints with pivot joints.

Ball and socket joint	Pivot joint
The rounded end of one bone fits into the hollow cavity of the other like a ball fits in a socket.	Cylindrical bone rotates within a circle of another bone
Freely rotates in all directions	Freely rotates only around a single axis
Found in the shoulder and the hip joint	Found in the neck

Hinge Joint	Fixed Joint
Two bones join together to form a hinge	Two bones join together in an immovable joint
Movement is only allowed in a single plane showing only back and forth movement	No movement is allowed
Found in the elbow, knee, etc.	Found in the bones of the top part of the skull.

Q.10 Compare hinge joints with fixed joints