

CH-8: BODY MOVEMENTS

JOINTS :JOINTS ARE THE PLACES IN THE BODY WHERE TWO OR MORE BONES MEET . IN SIMPLE JOINTS TWO BONES MEET WHERE AS IN COMPOUND JOINTS MORE THAN TWO BONES MEET.

BALL AND SOCKET JOINT

- IN SUCH A JOINT THE ROUNDED END OF ONE BONE FITS INTO THE CAVITY OF THE OTHER BONE.
- THIS JOINT ALLOWS MOVEMENT IN ALL THE DIRECTIONS.
- EXAMPLE: SHOULDER JOINT

- **PIVOTAL JOINT:** IN A PIVOTAL JOINT A CYLINDRICAL BONE ROTATES IN A RING.
IT ALLOWS THE MOVEMENT IN FORWARD, BACKWARD, RIGHT AND LEFT DIRECTIONS
EXAMPLE: JOINT WHERE NECK JOINS THE HEAD

HINGE JOINT: IT allows movement in only one direction i.e upwards and downwards.

eg: elbow

FIXED JOINT: THE BONES CANNOT MOVE AT THESE POINTS.eg
:BONES IN OUR HEAD, JOINT IN UPPER JAW AND REST OF THE HEAD

SKELETON

IT PROVIDES A FRAMEWORK OF OUR BODY.

IT HELPS IN THE MOVEMENT OF OUR BODY.

IT PROVIDES SUPPORT AND SHAPE.

- **RIBCAGE:** RIBS JOIN THE CHEST BONE AND BACKBONE TOGETHER TO FORM A RIB CAGE.
- IT PROVIDES PROTECTION TO IMPORTANT INTERNAL PARTS OF OUR BODY.
- **BACKBONE:** IT IS MADE UP OF MANY SMALL BONES. THE RIBCAGE IS JOINED TO THESE BONES.

SHOULDER BONES

PELVIC BONES:THEY ENCLOSE THE PORTION OF THE BODY BELOW THE STOMACH.

- **SKULL:** IT IS MADE UP OF MANY BONES JOINED TOGETHER.
- IT ENCLOSSES AND PROTECTS A VERY IMPORTANT PART OF THE BODY,THE BRAIN.
- **CARTILAGE:**THESE ARE NOT AS HARD AS THE BONES AND CAN BE BENT.

WORKING OF MUSCLES

- 1. Muscles always work in pairs and help the bones to move.
- 2. When one muscle contracts the bone is pulled in that direction.
- 3. The other pair of the muscle relaxes to move the bone in an opposite direction.

MOVEMENT IN EARTHWORM

- The earthworm moves by alternate expansion and contraction of muscles.
- The bristles on the underside of the body helps in gripping the ground and move forward.
- It secretes slimy substance which further helps in easy movements.

MOVEMENT IN SNAIL: It moves with the help of a muscular foot made of strong muscle

- it shows a wavy motion

COCKROACH: HAVE THREE PAIRS OF LEGS AND TWO PAIRS OF WINGS. MUSCLES NEAR TO THE LEGS MOVE THE LEGS FOR WALKING AND BREAST MUSCLES MOVE THE WINGS FOR FLYING.

- **BIRDS:** They have hollow and light bones.
- Streamlined body.
- Fore limbs are modified into wings
- Shoulder bones are strong.
- Hindlimbs help in walking and perching.
- **FISH :** in fish the muscles make the front part of the body curve to one side and tail part moves to the other side, this makes a jerk and pushes the body forward
- 2) this is helped by fins of tail.

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- **MOVEMENT IN SNAKE:** The snakes body curves into loops, each loop of the snake gives it a forward push by pressing against the ground
- thin muscles are connected to the backbone ribs