

Chapter 3 – Skeletal and Muscular System

Subject - Science

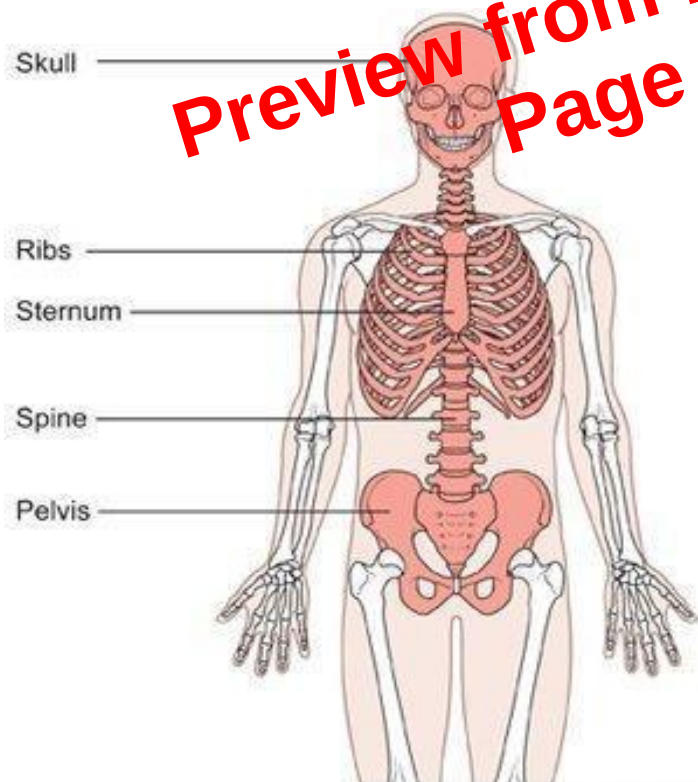
Class V

Skeletal system and its functions

Skeletal system is the framework of the body, consisting of bones and other connective tissues, which protects and supports the body tissues and internal organs.

The human skeleton contains 206 bones. The skeletal system is the body system composed of bones and cartilage and performs the following critical functions for the human body supports the body facilitates movement.

The skeletal system includes all of the bones and joints in the body. Each bone is a complex living organ that is made up of many cells, protein fibers, and minerals. The skeleton acts as a scaffold by providing support and protection for the soft tissues that make up the rest of the body.



The functions of the skeletal system are:

1. The skeleton gives shape and support to our body.
2. It protects the soft internal organs:
 - (i) The skull protects the brain.
 - (ii) The rib cage protects the heart and the lungs.
 - (iii) The backbone protects the spinal cord.
3. It allows the movement of different body parts.
4. Many bones in our body are hollow. They are filled with a jelly-like substance called bone marrow. Blood cells are made in the bone marrow.

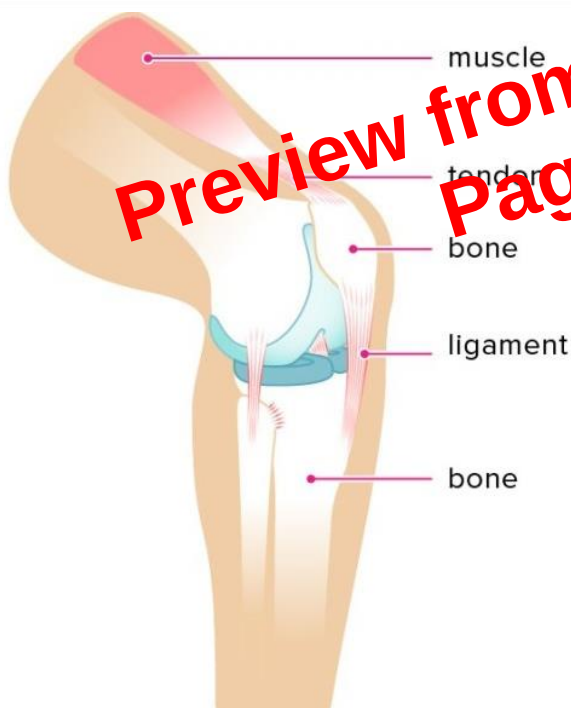
► **Bones (Skeletal organ)**

► **Joints**

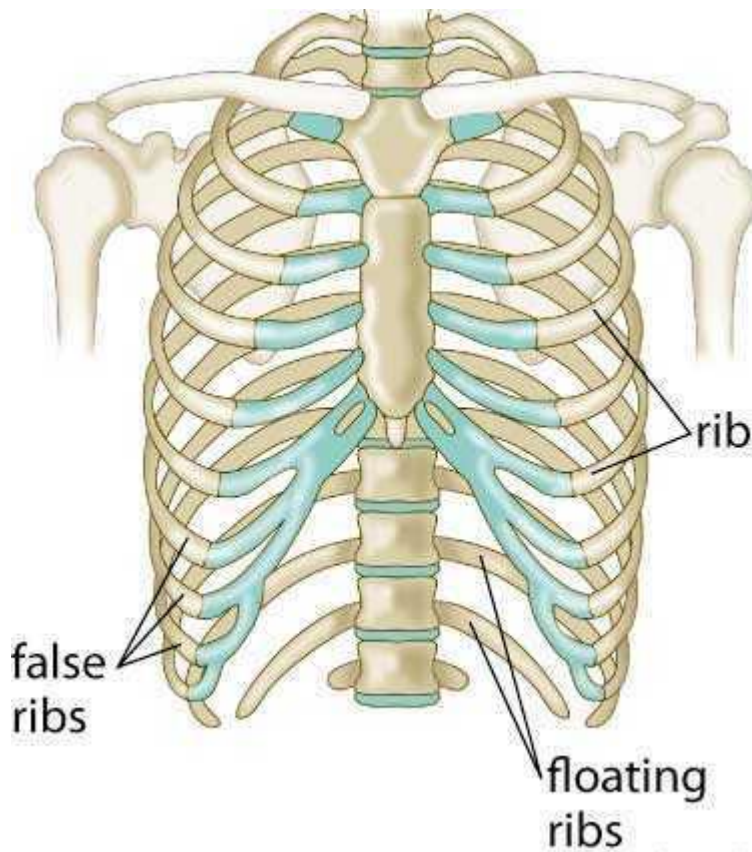
► **Cartilage**

► **Ligaments**

► **Tendons**



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3. Backbone: The backbone surrounds and protects the spinal cord. The spine (or backbone) runs from the base of the skull to the pelvis. It serves as a pillar to support the body's weight and to protect the spinal cord. There are three natural curves in the spine that give it an "S" shape when viewed from the side. These curves help the spine withstand great amounts of stress by providing a more even distribution of body weight.

The spine is made up of a series of bones that are stacked like blocks on top of each other with cushions called discs in between to help absorb shock/load.