

SKELETAL SYSTEM

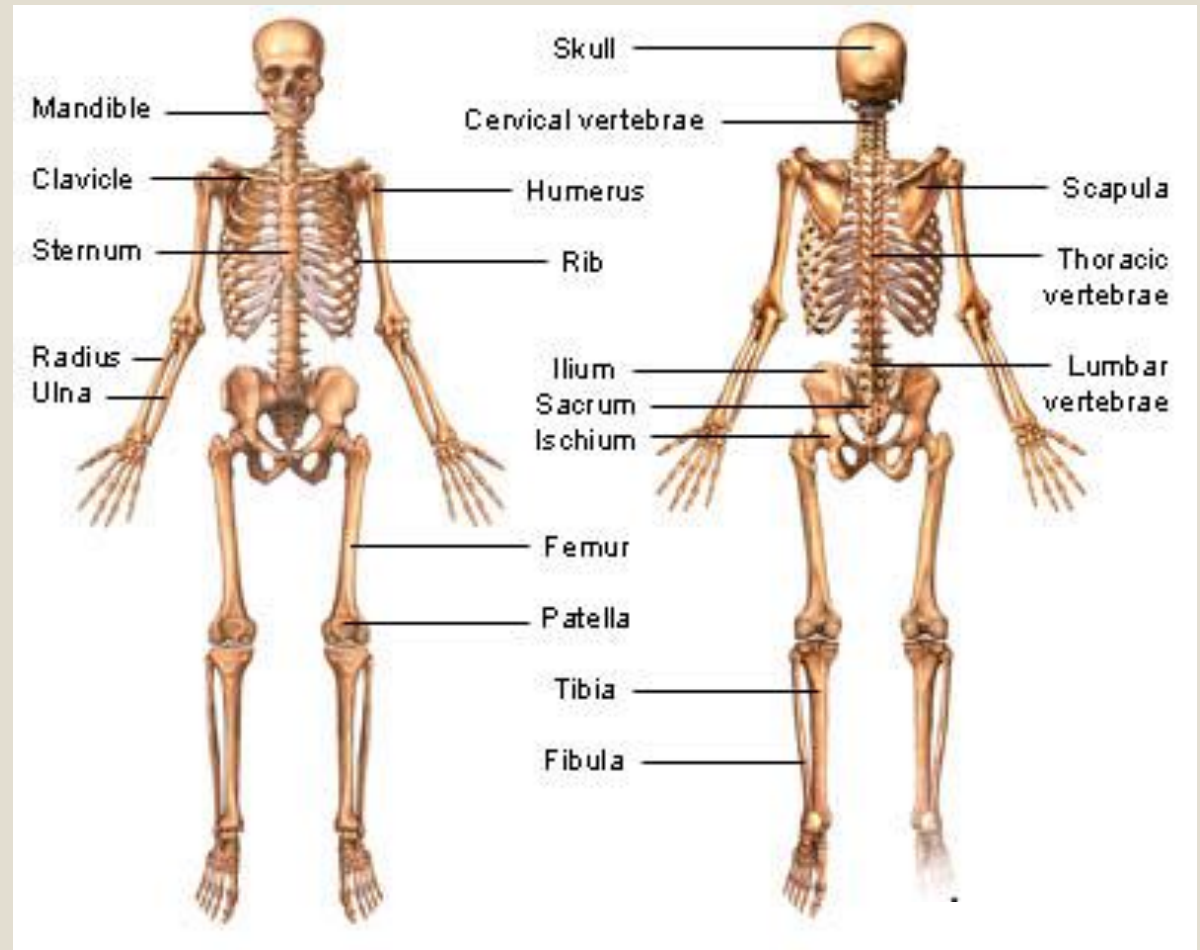
HUMAN ANATOMY

Dept. of Physical Education

Kandi Raj College

Teacher : Bappaditya Chakraborty

What is the skeletal system?



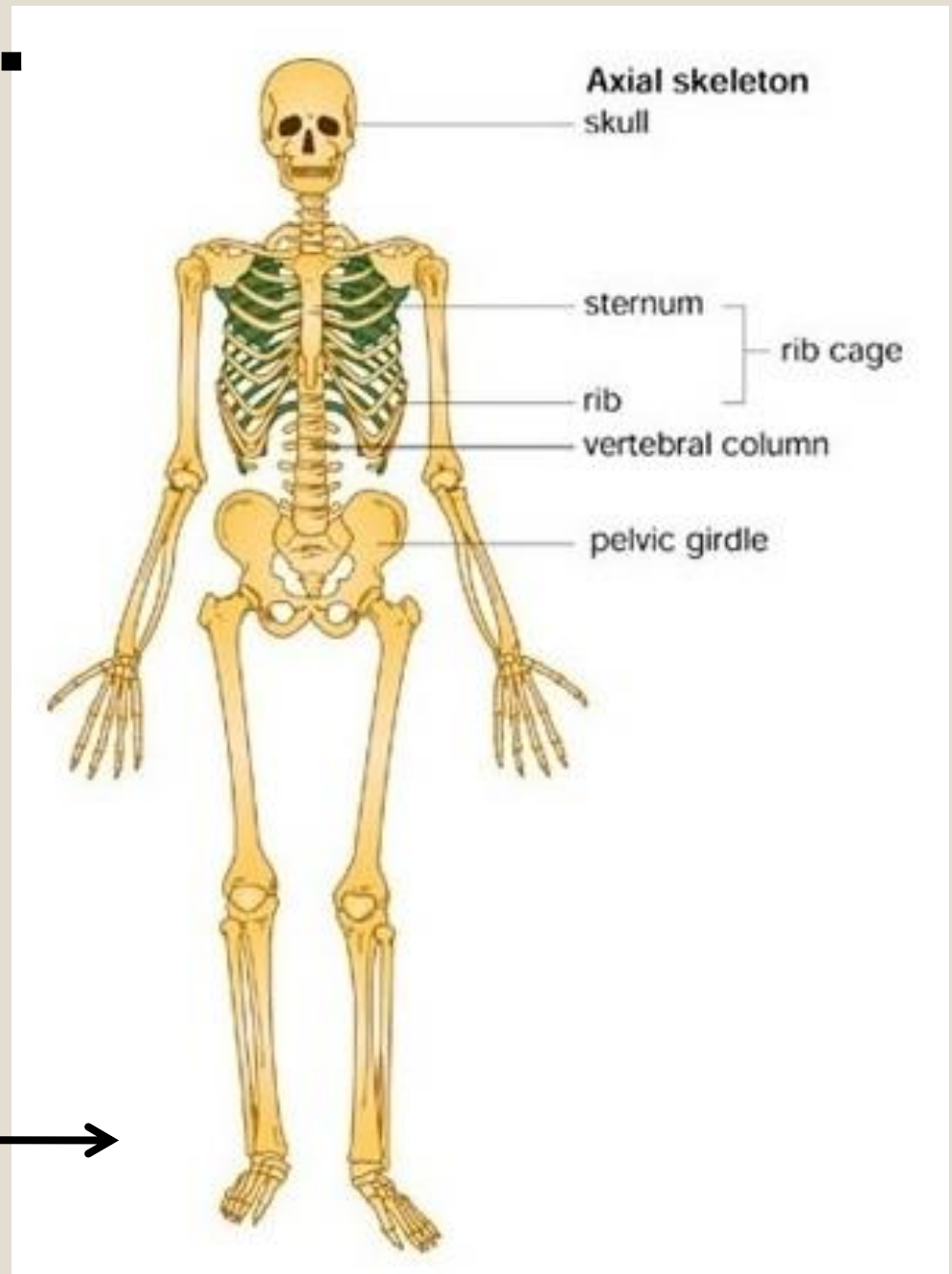
The skeletal system is composed of 206 bones that, along with cartilage, tendons, and ligaments, make up the framework or skeleton of the body.

Axial skeleton...

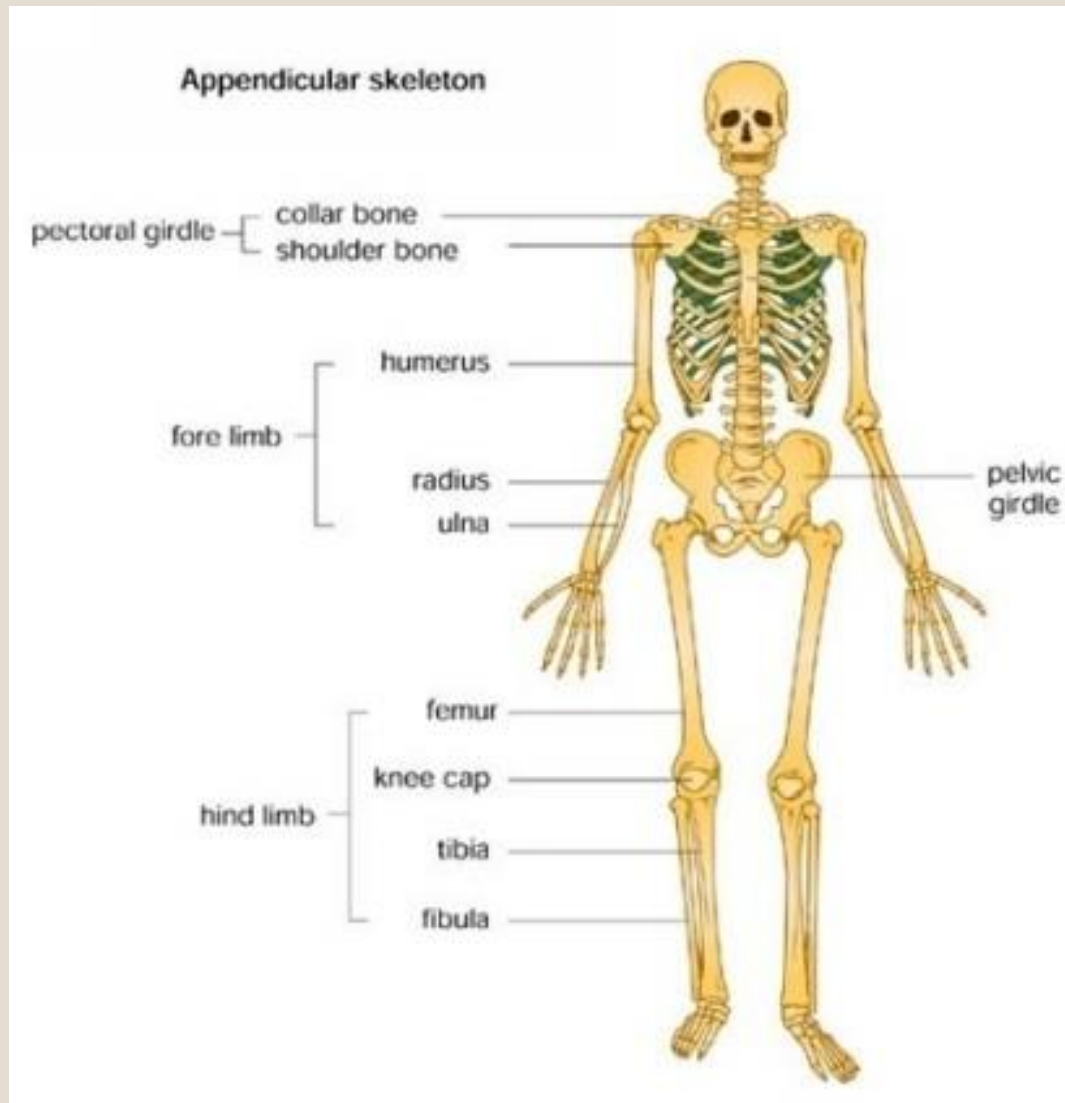
The skeleton can be divided into two main parts. The axial skeleton consists of 80 bones. The primary bones of the axial skeleton are the skull, spine, ribs and sternum (thorax).

Anterior means front; posterior means back.

This is an anterior  view of the skeleton.



Appendicular



The appendicular skeleton consists of 126 bones. The primary bones of this skeleton are the shoulder or pectoral girdle, arms, hands, pelvic girdle, legs, and feet.

Functions of bones...

Bones are composed of about 50% water and 50% a solid, calcified, rigid substance known as osseous (AH see us) tissue.

- 1. Bones provide shape, support, and the framework of the body.**
- 2. Bones protect internal organs.**
- 3. Bones serve as a storage place for minerals such as salts, calcium, and phosphorus.**
- 4. Bones play an important role in hematopoiesis (hee MAT ah poh EE siss)... the formation of blood cells that takes place in bone marrow.**
- 5. Bones provide a place to attach muscles.**
- 6. Bones make movement possible through articulation.**

Classifications of bones...

Bones can be classified by shape. 4 of those classifications are:

LONG bones include the femur (thigh), tibia (larger shin), fibula (smaller shin bone), humerus (upper arm), radius (larger forearm), and ulna (smaller forearm).

SHORT bones include the carpals of the wrist and tarsals of the ankle.

FLAT bones include the skull, sternum (breastbone), and scapula (shoulder bone).

IRREGULAR bones include the vertebrae (spine), and pelvic.

Joints...

A joint is a place where two or more bones connect. The manner in which they connect determines the type of movement allowed at that joint.

A synarthrosis is a joint that allows no movement. An example would be a cranial suture.

A amphiarthrosis is a joint that allows slight movement. An example would be a vertebra.

A diarthrosis is a joint that allows free movement in a variety of directions, such as knee, hip, elbow, wrist, and foot.

Types of body movements...

Flexion: bending a limb

Extension: straightening a flexed limb

Abduction: moving a body part away from the middle.

Adduction: moving a body part toward the middle.

Supination: lying supine or face upward; or turning the palm or foot upward.

Pronation: lying prone or face downward; or turning the palm downward.

Rotation: moving a body part around a central axis

Circumduction: moving a body part in a circular motion

Inversion: turning inward.

Eversion: turning outward.

THE END