

The Skeletal System | Notes

Functions of the Skeleton

- Gives the body shape and supports the soft tissues of the body
- Some skeletal bones provide protection to the internal organs by enclosing them and protecting from injury
- Muscles are attached to bones so when they contract they cause movement
- Calcium and phosphorus are stored in bone
- Red blood cells are produced in bone marrow

The Structure of Bone

Joint

- Place where two or more bones meet

Cartilage

- A layer of tissue that is found on bones in between joints

Spongy Bone

- Occurs in long bones and contains red bone marrow

Medullary Cavity

- Known as the marrow cavity
- Contains yellow marrow

Compact bone

- Outer layer of bone
- White in appearance and hard

Connective Tissue

Adipose tissue

- Loose type of connective tissue
- Stores fat

- Used for insulation
- Found beneath the skin and around internal organs

Tendons

- Connect muscle to bone
- Inelastic fibres consisting of collagen

Ligaments

- Connective tissue consisting of fibres of collagen
- Connect two bones together at a joint
- Slightly elastic

Muscle

- Approx. 40% of the body's total weight
- Muscle contraction causes movement

Muscle Types

Skeletal muscle

- Attached to the bones
- Found in the diaphragm and between the ribs
- Voluntary muscle
- Does not move of its own accord
- Movement and breathing

Smooth muscle

- Found in the internal organs
- Involuntary muscle that moves independently
- Peristalsis

Cardiac muscle

- Found in the heart
- Involuntary muscle that does not fatigue
- Pumping blood