

The Muscular system

DQ: How do our muscles work?

Identify the main muscles of the body

Describe the function of the muscular system

Explain the different types of muscles

Analyse how a muscle moves as an antagonistic pair

Link the features of different muscle types to their functions

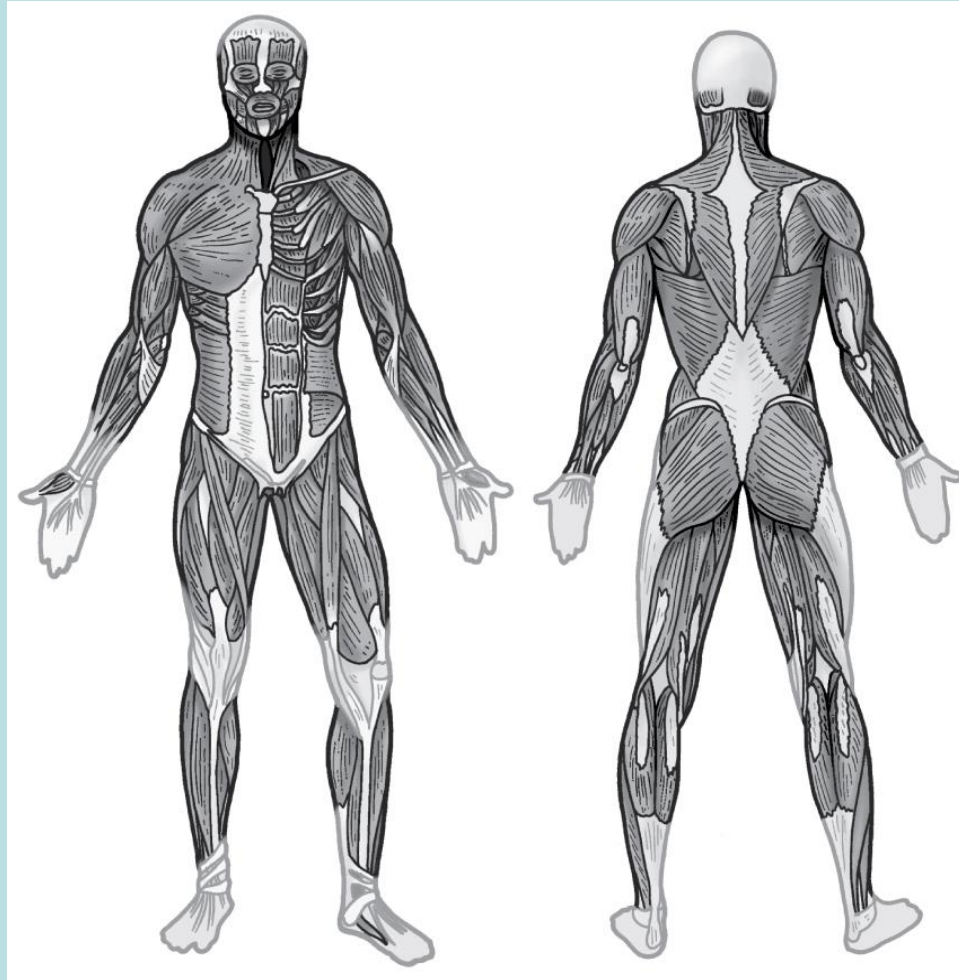
Starter;

What muscles can you label on the diagram of the muscular system?

Today; Identification of the main bones and muscles

Muscles you must label and identify are;

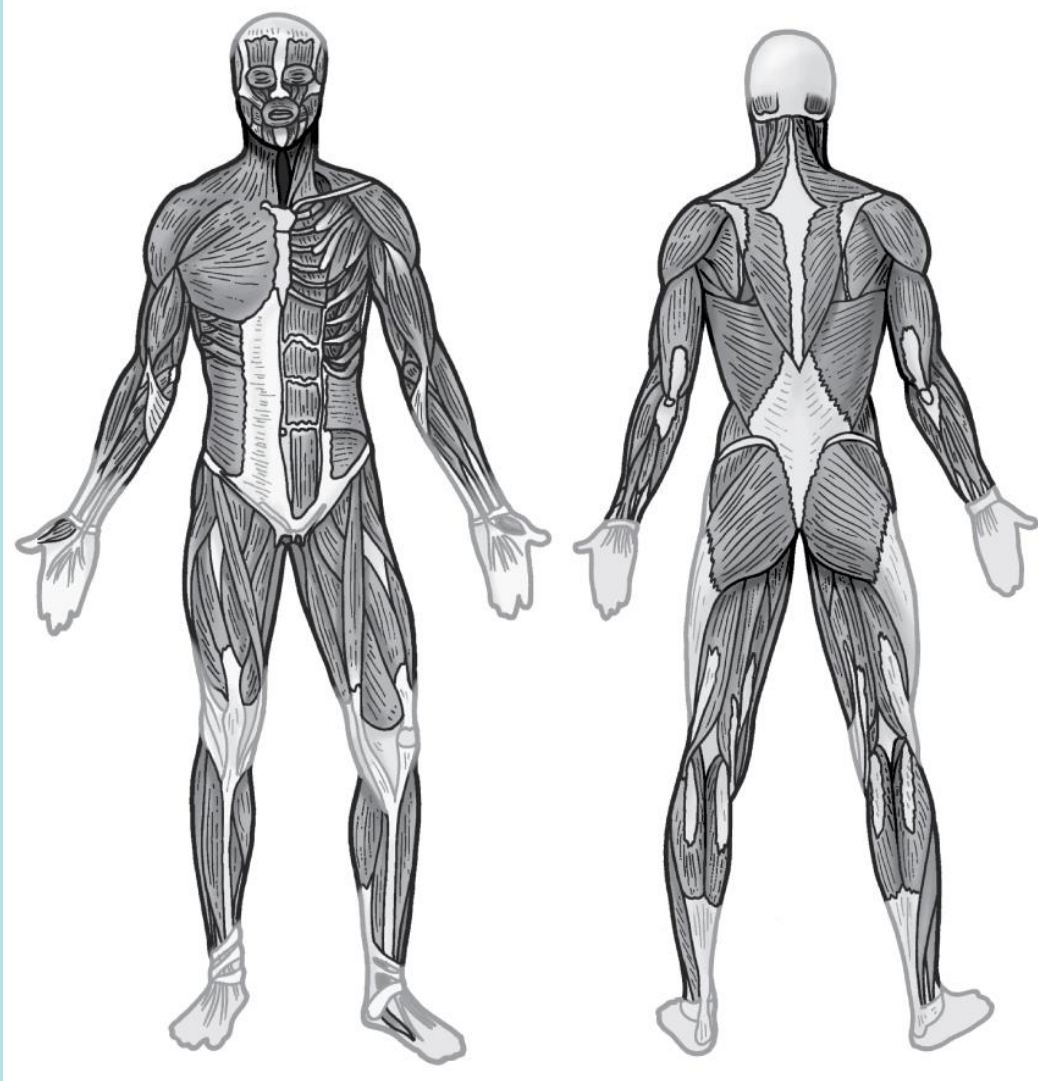
Biceps, triceps, deltoids, pectorals, rectus abdominis, quadriceps, Hamstrings, gastrocnemius, soleus, trapezius, latissimus dorsi, obliques and gluteus maximus



Today; Identification of the main bones and muscles

1. Write a sentence explaining what the muscular system is made up of;

About 40% of your body mass is muscle and the key function is to move the bones of the body, there are over 640 in the body.



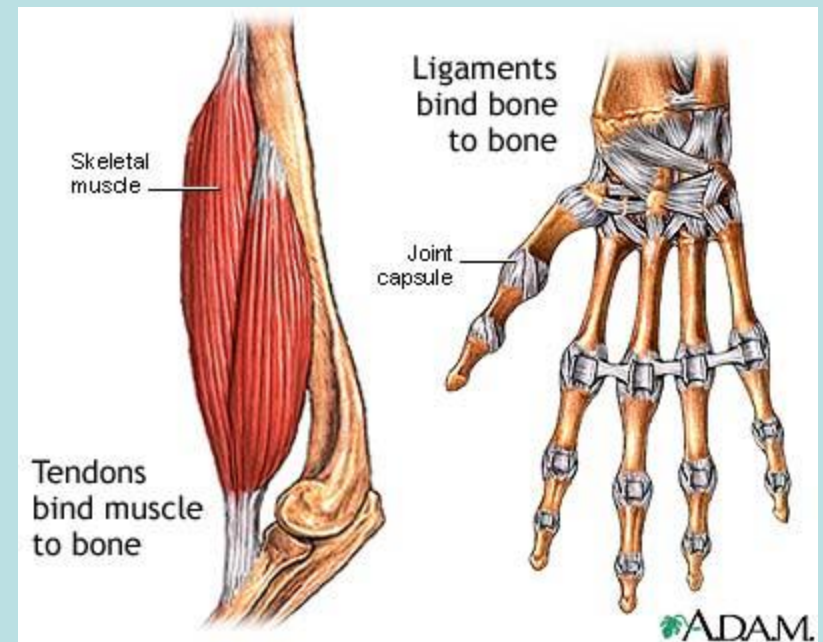
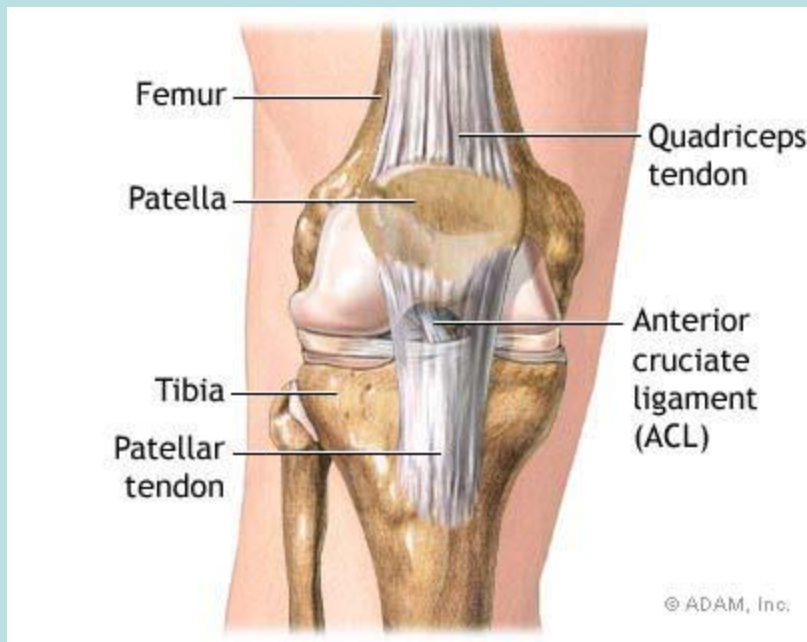
There are 3 types of muscle tissue;

- Skeletal muscle- Voluntary muscle we control it. Also known as stripe or striated muscle – it is attached to bone by tendons

- Smooth muscle- Involuntary, it works without our thought processes worked by the nervous system – mainly found in the gut

- Cardiac- found in the heart wall, continuously works and involuntary. It has its own blood supply and is a specialised striated tissue. It contracts to force blood around the body.

TENDONS AND LIGAMENTS



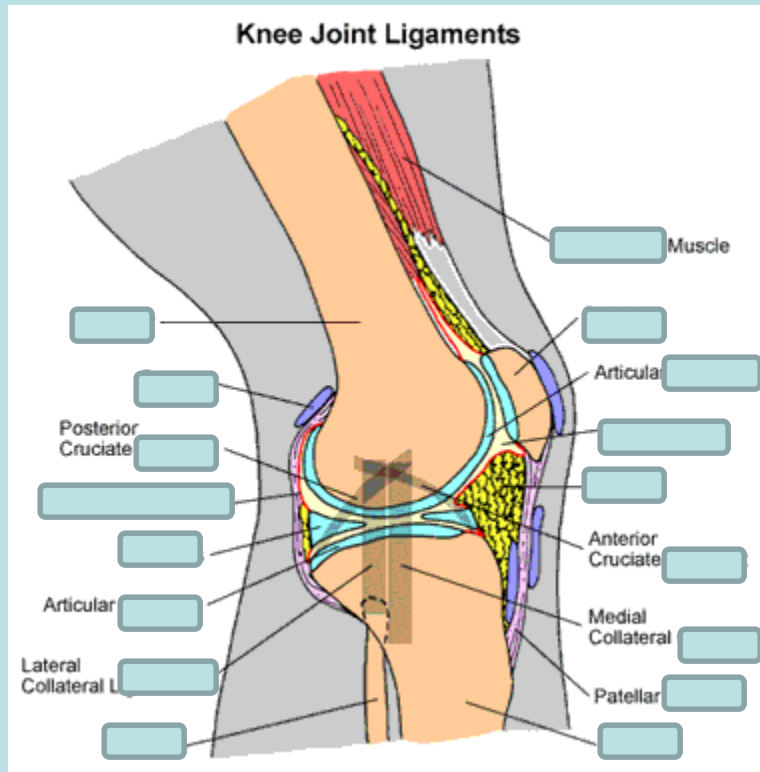
Tendons- two types

- Connect muscle to bone
- Tough, but flexible
- Bands of fibrous tissue
- Enable you to move – ‘middle man’ between muscle and bone

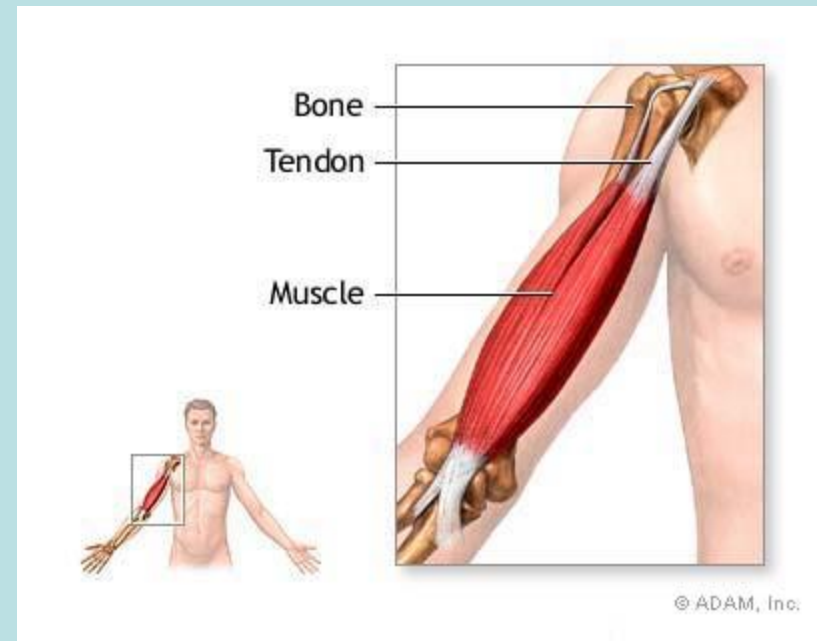
Ligaments- Like to like

- Similar to tendons
- Connect bone to bone
- Stabilize joints
- Made of stringy collagen fibres
- Elastic
 - Can be lengthened by stretching
 - Prevents injury

Ligaments



Tendons



Tendon and Ligament Injury

- Sprain – stretched or injured ligament
- Strain – stretched or injured tendon
- Because there is only a small blood supply to these areas, incomplete healing is common after injury
- Both are weakest at the point where they are attached to bone

The Skeletal system

DQ: What does our skeleton do?

Identify the main bones of the human skeleton

Describe the function of the skeletal system

Explain the different types of joint

Analyse the movements of specific joints

Link the features of different joints to their movements

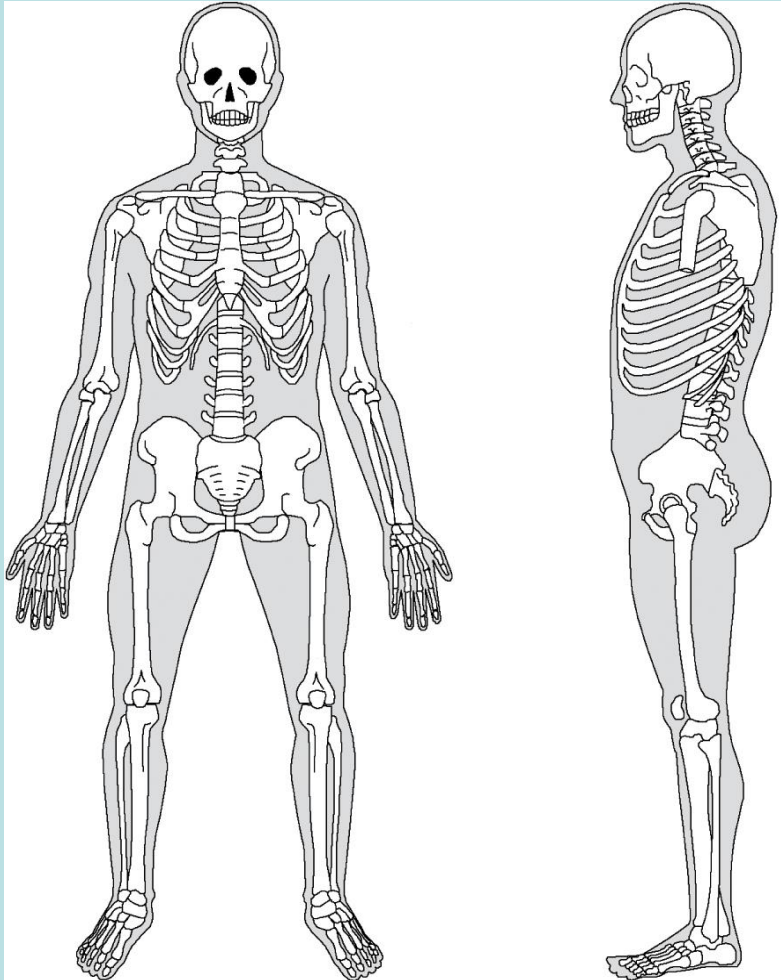
Starter;

What bones can you label on the worksheet

Today; Identification of the main bones and muscles

1. Write a sentence explaining what the skeletal system is made up of;

The skeleton is the framework that supports muscle and skin, whilst protecting internal organs. It is made of bone, cartilage and joints.



The skeleton is made of 206 bones, divided into groups;

- 80 form your Axial skeleton- the long axis of the body which include the skull, vertebral column and thorax (sternum and ribs)

- 126 form your Appendicular skeleton- bones that are attached to the axis, these include the upper and lower limbs, pelvic girdle and shoulder girdle

Today; Identification of the main bones and muscles

Bones you must label include; Cranium, mandible, vertebral column (including cervical vertebrae, thoracic vertebrae, lumbar vertebrae, clavicle, scapula, humerus, radius, ulna, carpels, metacarpels, phalanges, sternum, ribs pelvis, femur, patella, tibia, fibula, tarsels, metatarsels, phalanges

