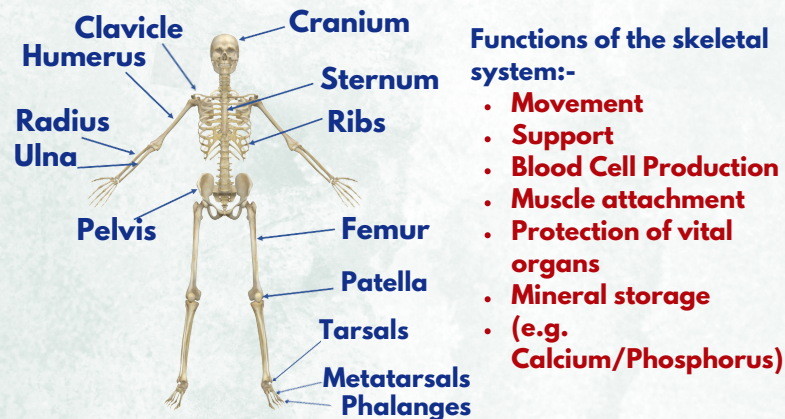
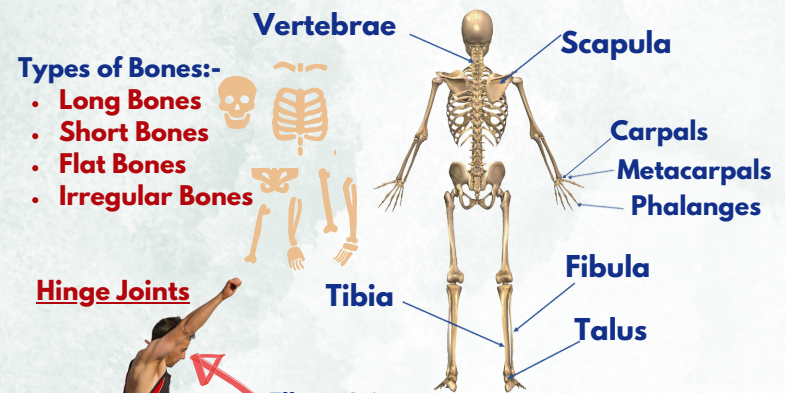




The PE Classroom

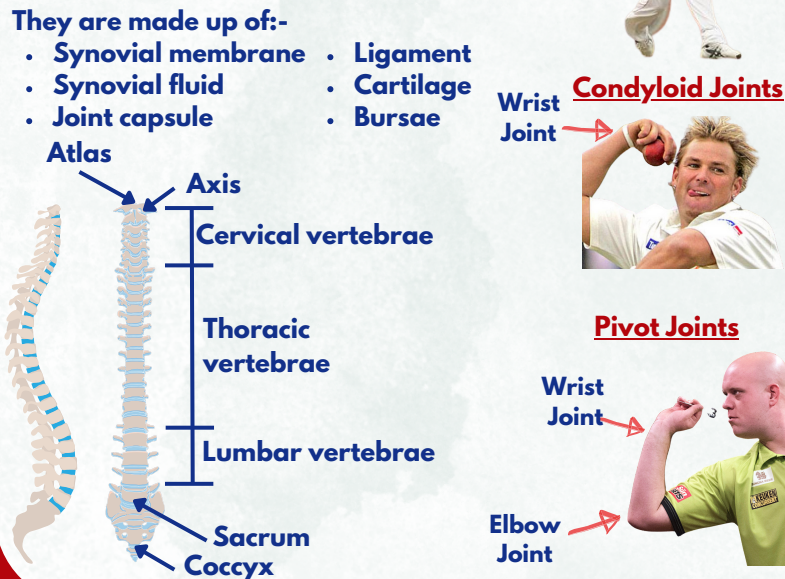
Edexcel GCSE PE: Systems of the Body

The Skeletal System



Joints allow **movement** and **rotation**. Synovial joints are where **two or more bones** meet. They are made up of:-

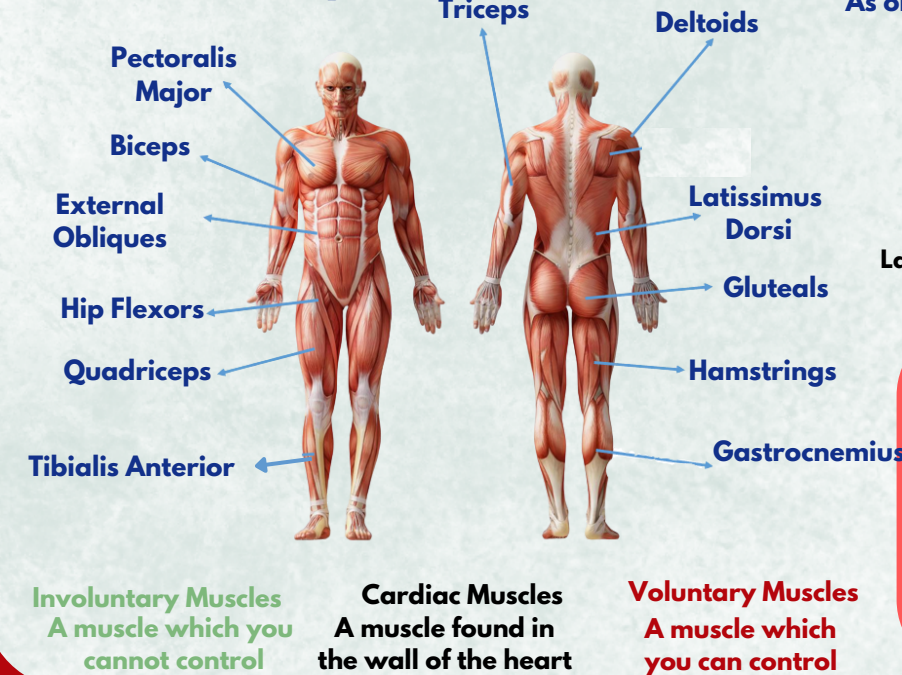
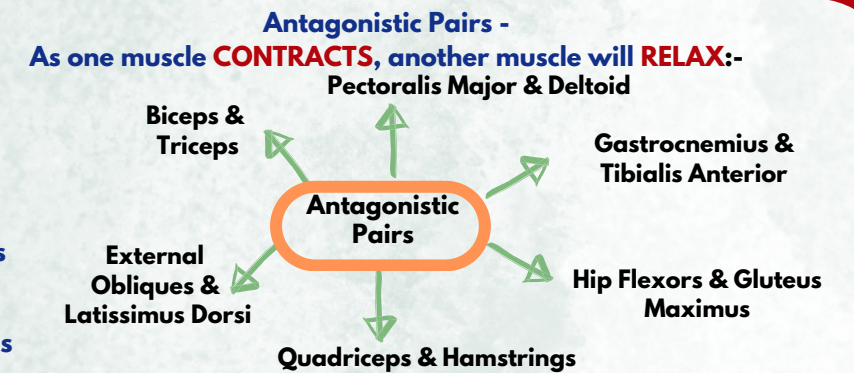
- Synovial membrane
- Synovial fluid
- Joint capsule
- Ligament
- Cartilage
- Bursae



Joint Actions

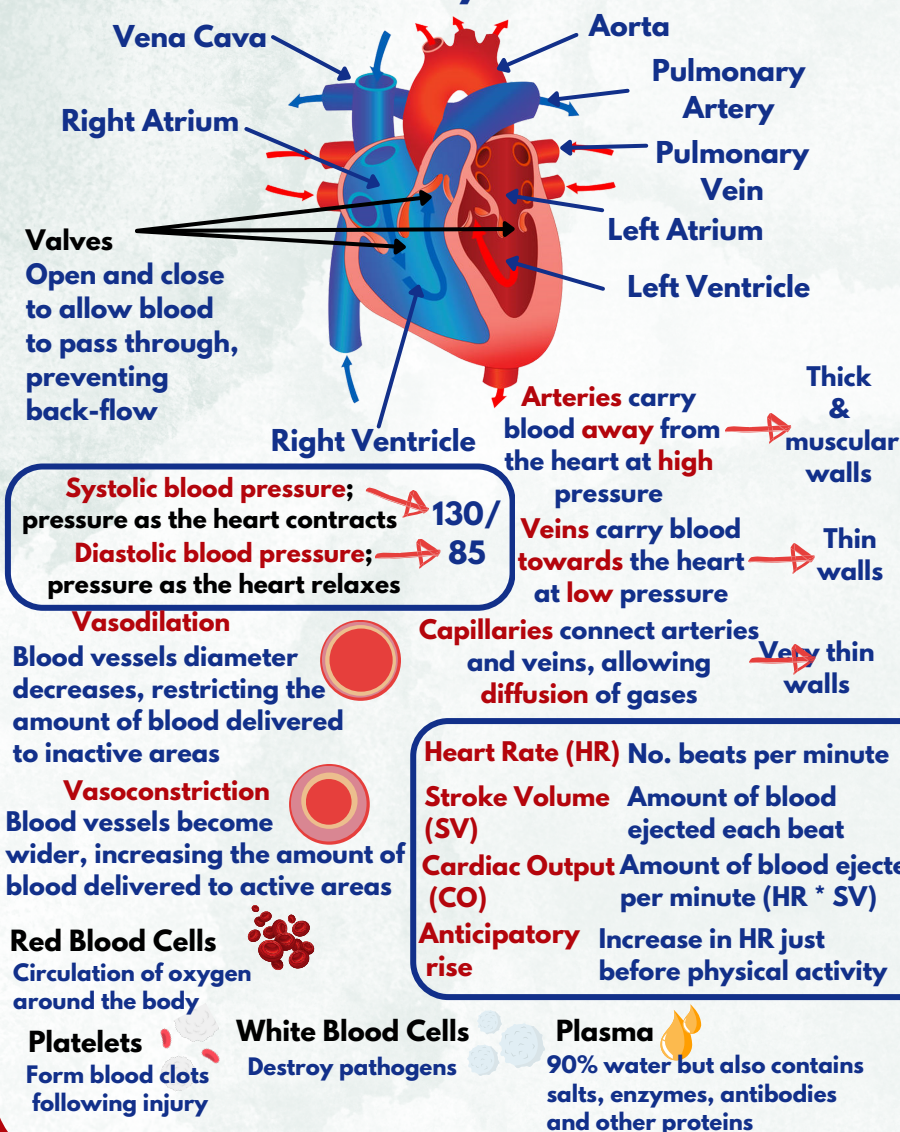
- Flexion** - narrowing of the angle at a joint
- Extension** - widening of the angle at a joint
- Abduction** - movement away from the body midline
- Adduction** - movement towards the body midline
- Plantarflexion** - widening of the angle at the ankle joint
- Dorsiflexion** - narrowing of the angle at the ankle joint
- Rotation** - the action of rotating around an axis
- Circumduction** - action of rotating 360 degrees around an axis

The Muscular System

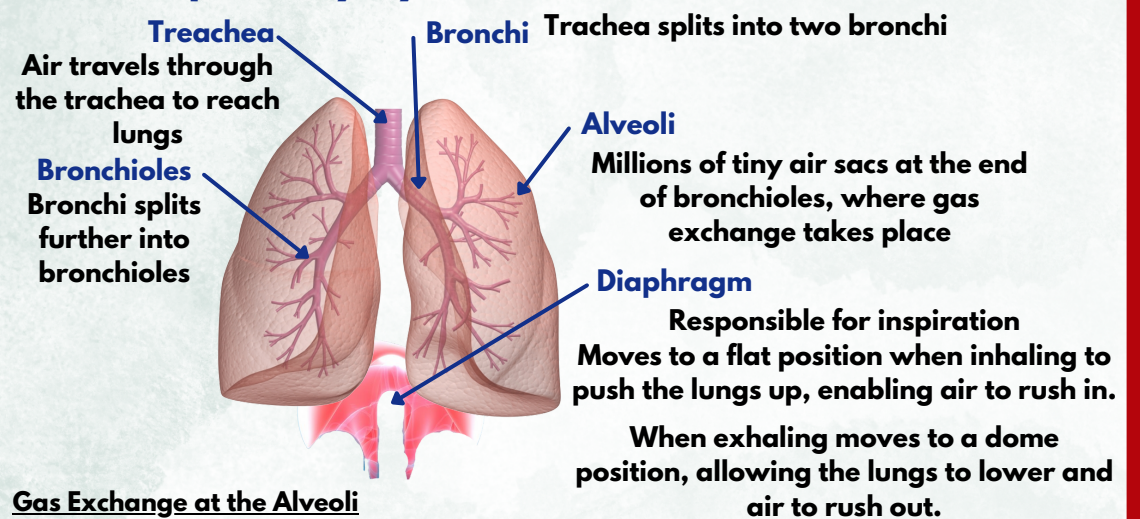


Muscle Fibres		
Type I	Type IIA	Type IIX
Slow Twitch	Fast Twitch	Fast Twitch
Slow Contractions	Fast Contractions	Very Fast Contractions
Aerobic Activity	Fatigue relatively quickly	Fatigue very quickly
e.g. Marathon	e.g. 800m	e.g. 100m

The Cardiovascular System

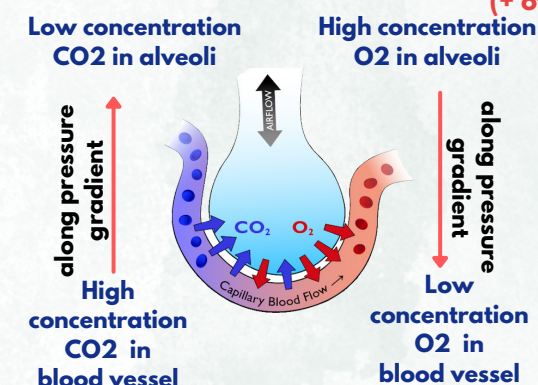


The Respiratory System



Gas Exchange at the Alveoli

- The **oxygen** in the alveoli diffuses into the **bloodstream** and is transported to the working **muscles**
- The **CO2** from the **bloodstream** diffuses into the alveoli in order to be exhaled by the **lungs**



	Inhaled Air	Exhaled Air
Oxygen	21%	16%
Carbon Dioxide	0.04%	4%
Nitrogen (+ other gases)	79%	79%

Labelling a Spirometer Trace

