

Section 1 - Organisation

- **Cells** of the same or similar type work together as a **tissue**.
- **Tissues** of different types work together as **organs**.
- **Organs** work together as **organ systems**.

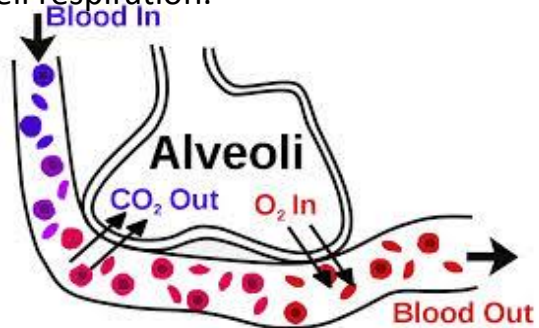
Section 2 - Organ systems

- Skeletal system
- Muscular system
- Circulatory system
- Digestive system
- Urinary system
- Nervous system
- Reproductive system
- Respiratory system

Section 3- Role of the lungs and gaseous exchange

Role of the lungs

- To supply oxygen to the blood, to be carried to the cells in the body for respiration.
- To remove harmful carbon dioxide from the blood. The carbon dioxide is produced during cell respiration.

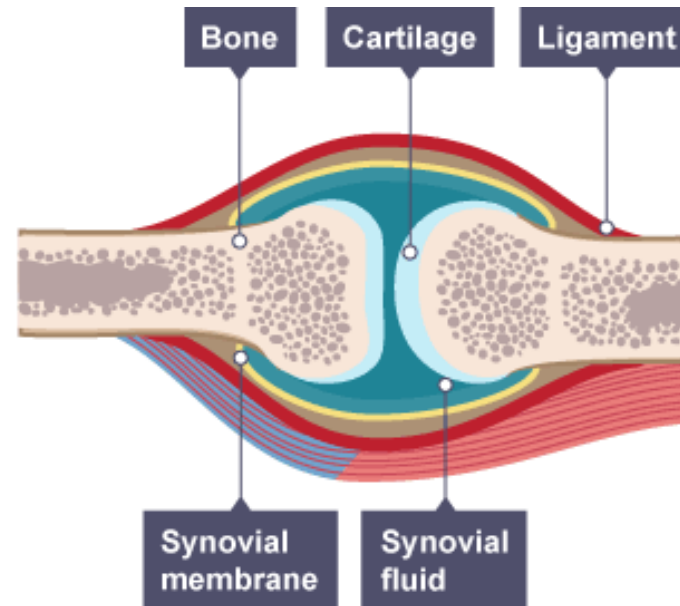


Section 4 - Functions of the Skeleton

- Support the body
- Protect vital organs
- Helps the body move
- Makes blood cells

Long bones in your arms and legs, are not solid. In the middle of these bones is a soft tissue called **bone marrow**. **Bone marrow** produces red and white blood cells.

Section 5- Joints and Muscles

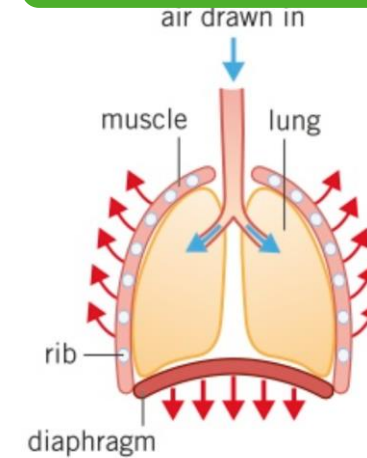


Muscles work in **antagonistic** pairs. Muscles can only pull by contracting they cannot push therefore they must work as pairs. As one **contracts** the other **relaxes**.

Joints are where bones meet. They enable movement to occur.

Section 6 - Breathing

Inhalation

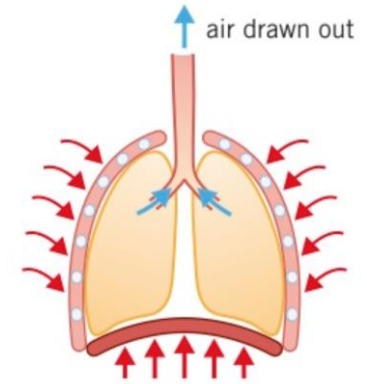


1. Diaphragm contracts and moves downwards.
2. Muscles between the ribs contract pulling the ribs up and out.
3. This causes the volume in the chest cavity to increase. Increase in volume decreases the pressure.
4. To equalise the pressure air moves into the lungs.

Inhaled Air

Oxygen ~21%
Carbon dioxide ~0.04%
Other gases ~1%
Nitrogen ~78%

Exhalation



1. Diaphragm relaxes causing it to rise.
2. Rib muscles relax moving the ribs down and in.
3. This causes the volume of the chest cavity to decrease. Decrease in volume increases the pressure.
4. To equalise the pressure air moves out of the lungs.

Exhaled Air:-

Oxygen ~16%
Carbon dioxide ~4%
Other gases ~1%
Nitrogen ~78%