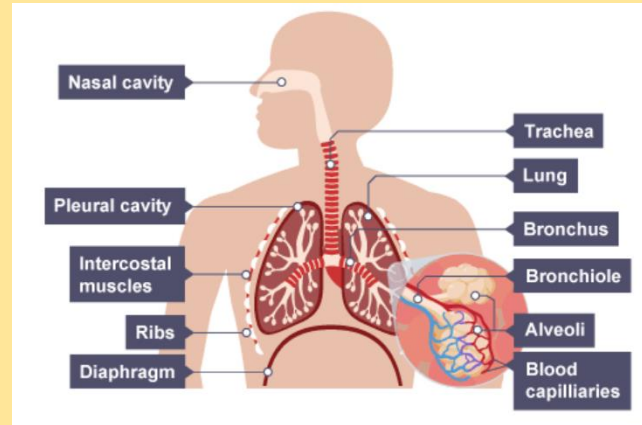


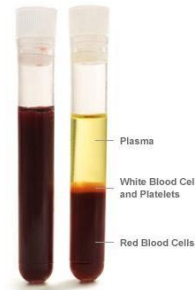
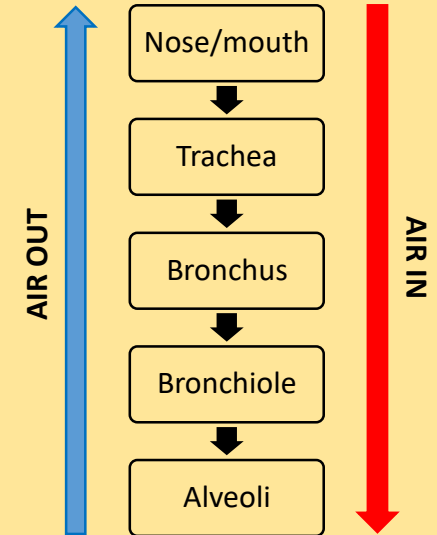
Biology: The Lungs and The Blood

Key word	Definition
Diffusion	The net movement of particles from an area of high to low concentration (passive).
Concentration gradient	Occurs when particles are more concentrated in one area than another.
Ventilation	The process of air flowing into and out of the lungs during inhalation and exhalation.
Oxygenated	Contains oxygen.
Deoxygenated	Does not contain oxygen.
Nucleus	Part of the cell that carries genetic information (DNA).
Haemoglobin	Red pigment in blood that allows oxygen to be carried.
Concave shape	Dish shaped.
Pathogens	Microorganisms that cause disease.
Antibodies	A protein made by the immune system to help get rid of pathogens.

The Lungs:

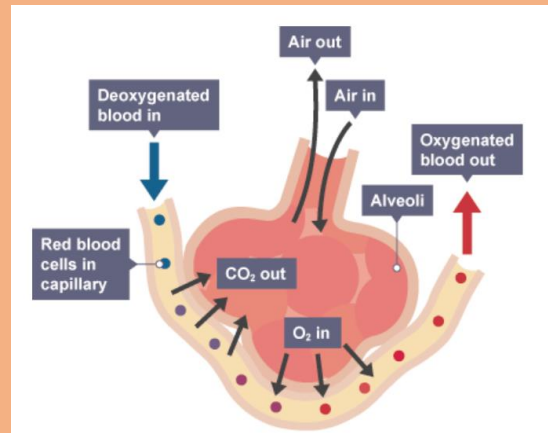


Involved in **ventilation**- used for gas exchange



Alveoli: small air sacs

- **Thin membrane**- short diffusion pathway
- **Good blood supply**- maintains concentration gradient
- **Large surface area**- folded membrane



The Blood is made of four parts:

- Red Blood Cells
- White Blood Cells
- Plasma
- Platelets

Red Blood Cells

Carry **oxygen** around the body. No **nucleus** and concave shape to increase **surface area**. Contains **haemoglobin**.



White Blood Cells

Defend against **pathogens**. Produce **antibodies, antitoxins, engulf** pathogens..



Plasma

Liquid that carries the **components** of the blood and **waste products**.



Platelets

Small cell fragments with **no nucleus** Help the **blood to clot** at a wound.

