TRACHEA

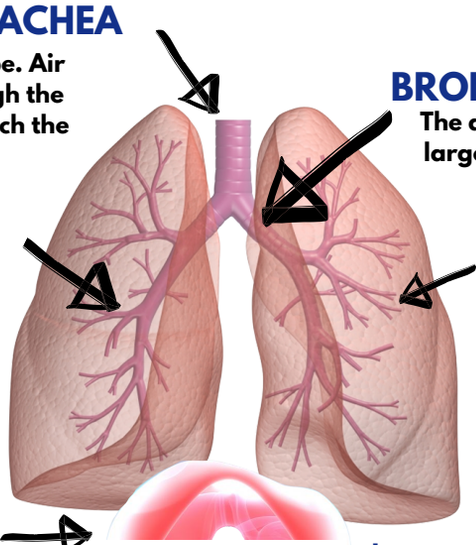
AKA Wind Pipe. Air travels through the trachea to reach the lungs.

BRONCHI

The air travels through larger branches called Bronchi

BRONCHIOLES

The air then reaches smaller branches called Bronchioles



ALVEOLI

At the end of the bronchioles lies millions of tiny air sacs called alveoli. This is where gas exchange takes place.



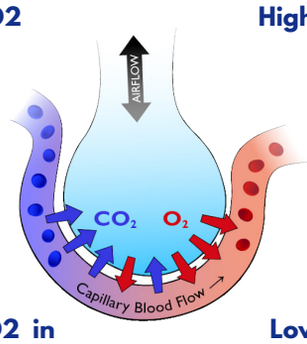
DIAPHRAGM

Responsible for inspiration
Moves to a flat position when inhaling to push the lungs up, enabling air to rush in
When exhaling moves to a dome position, allowing the lungs to lower and air to rush out



Low concentration CO2 in alveoli

along pressure gradient

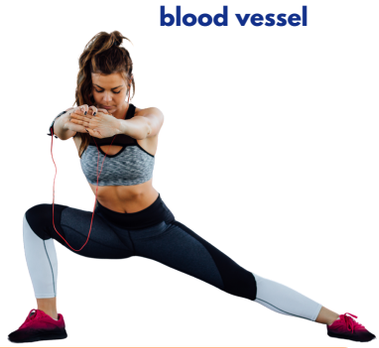


High concentration O2 in alveoli

along pressure gradient

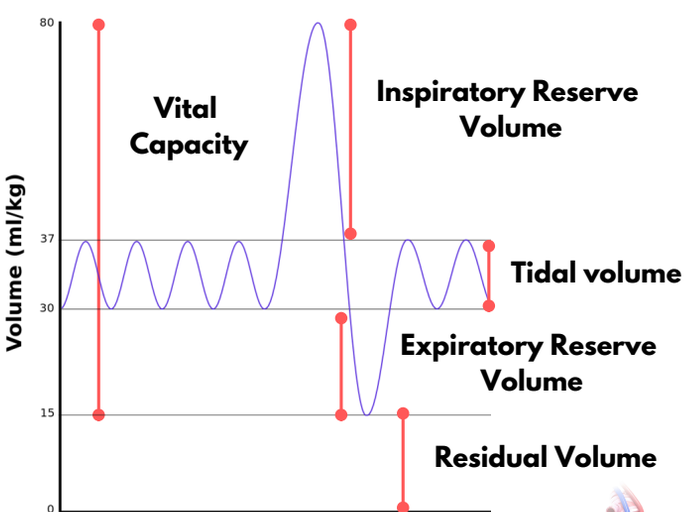
High Concentration CO2 in blood vessel

Low Concentration O2 in blood vessel

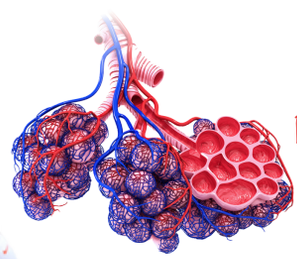


PE COMPONENT 1 - RESPIRATORY SYSTEM

Labelling a Spirometer Trace







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

Alveoli

- Tiny sacs of air that have a high concentration of oxygen after breathing in
- Oxygen diffuses through the moist, thin walls & into the blood stream. This happens as gases move from areas of high concentration, into areas of low concentration
- Alveoli have a large surface area and are surrounded by capillaries, helping gas exchange