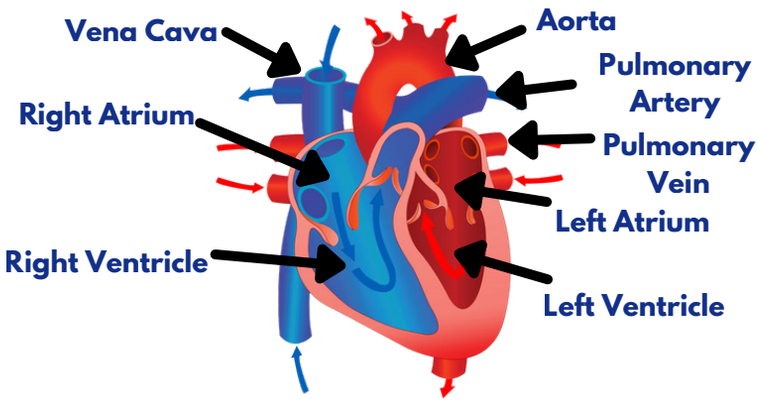

Arteries	Carry blood away from the heart	Thick & muscular walls
Veins	Carry blood towards the heart	Thin walls
Capillaries	Connect artries & veins. Allows diffusion to take place	Very thin walls

- Systole - the phase of the cardiac cycle where the cardiac muscles contract to eject blood.
- Diastole - the phase of the cardiac cycle where the cardiac muscles relax to allow the chambers to fill with blood.
- Valves in the heart open and close to allow blood to pass through.
- Valves prevent the back-flow of blood when pressure is lower.

Redistribution of Blood Flow

Vasodilation

Blood vessels become wider, increasing the amount of blood that is delivered to active areas.

Dilate = Diameter Increases

Vasoconstriction

Blood vessels become narrower, restricting the amount of blood that is delivered to inactive areas.

Constrict = Diameter Decreases

PE COMPONENT 1 - CV SYSTEM

Oxygen diffuses into the red blood cells where it connects with haemoglobin to create OXYHAEMOGLOBIN. This transports o2 to working muscles.

Carbon dioxide is a by-product of energy use in the working muscles. Haemoglobin is also the transporting cell to return Co2 back to the heart and lungs.

Average Blood Pressure

This number refers to systolic blood pressure; The pressure of the blood as the heart contracts

120/80

This number refers to diastolic blood pressure; The pressure of the blood as the heart relaxes

Heart Rate	The amount of times the heart beats each minute
Stroke Volume	The amount of blood that is ejected from the heart each beat
Cardiac Output	Heart Rate x Stroke Volume – The amount of blood that is ejected from the heart each minute
Anticipatory Rise	An increase in heart rate that typically occurs just before an activity is to be undertaken.