

Year 6 Science knowledge organiser- The Circulatory system

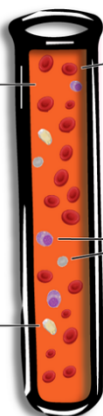
Components of blood

Plasma

Transports nutrients, hormones, and proteins. It is a yellow liquid that makes up about 55% of the body's blood volume.

Platelets

Form clots to stop bleeding. Platelets make up less than 1% of blood.



Red blood cells

Carry fresh oxygen through the body and remove carbon dioxide. Red blood cells make up about 40 to 45% of blood.

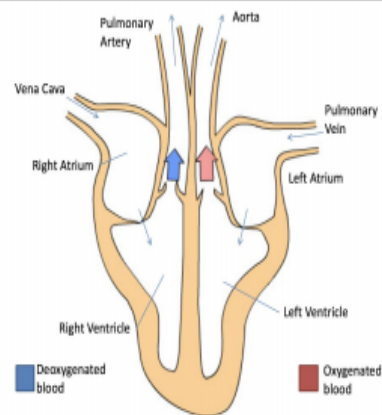
White blood cells

Part of the body's immune system, detect and fight viruses and bacteria. There are five major types of white blood cells, and they make up less than 1% of blood.

Source: American Society of Hematology

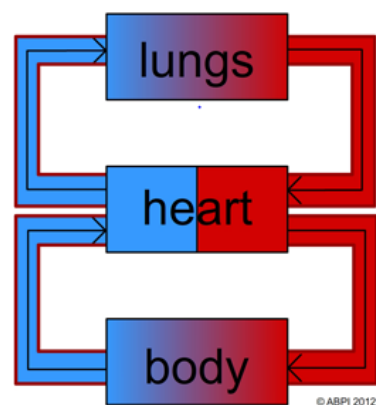
The Function of the Heart:

- 1 **Deoxygenated** blood flows into the heart from the body through the veins
- 2 This blood is pumped out to the lungs through the **pulmonary artery**
- 3 Blood is then **oxygenated** in the lungs
- 4 Blood returns to the heart through the **pulmonary vein**
- 5 The oxygenated blood is then pumped out of the heart through the **aorta**
- 6 The blood travels around the body delivering oxygen and nutrients to the organs.



Science Vocabulary Dozen

Heart	A strong muscle in the chest protected by the ribs, that pumps blood around the body.
Lungs	Organs, situated within the ribcage, that allow oxygen to pass into the blood and carbon dioxide to be removed.
Blood Vessels	The tubes that carry blood around the body.
Artery (Arteries)	The vessels that take blood away from the heart.
Veins	The blood vessels that carry blood back to the heart.
Oxygenated blood	Blood that is rich in oxygen.
De-oxygenated blood	Blood that contains very little oxygen.
Blood	Liquid that travels to every cell in the body transporting nutrients and oxygen. Contains red, white blood cells, plasma and platelets.
Atrium (Atria)	The upper chambers of the heart (Right and left atrium).
Ventricles	The lower chambers of the heart (Right and left ventricles).
Valve	A one-way 'door' that allows blood to flow freely in one direction, not allowing blood to flow back through the valve.
Pulmonary	Related to the lungs and breathing.



The Circulatory system

The system that circulates blood around the body.

Phrases Linked to The Circulatory System

Bad blood

Make blood boil

Heart beating like a drum

Blue blood

Blood is thicker than water

From the bottom of my heart