

Eagle Owls

Animals Including Humans - Knowledge Organiser

Key Vocabulary

Circulatory system: A system which includes the heart, veins, arteries and blood transporting substances around the body.

Heart: An organ which constantly pumps blood around the circulatory system.

Blood vessels: The tube-like structures that carry blood through the tissues and organs. **Veins, arteries and capillaries** are the three types of blood vessels.

Oxygenated blood: Oxygenated blood has more oxygen. It is pumped from the heart to the rest of the body.

Deoxygenated blood: is blood where most of the oxygen has already been transferred to the rest of the body.

Important Scientists:

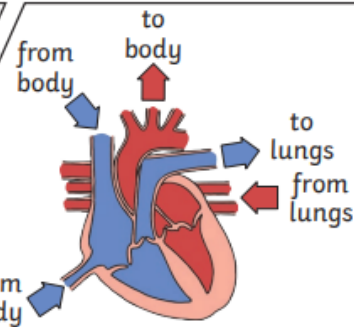
William Harvey (1578 - 1657) is recognized as the man who discovered and published the first accurate description of the human circulatory system, based on his many years of experiments and observations as a scientist and physician.

Unlock more knowledge by reading and / or visiting:

Class books:

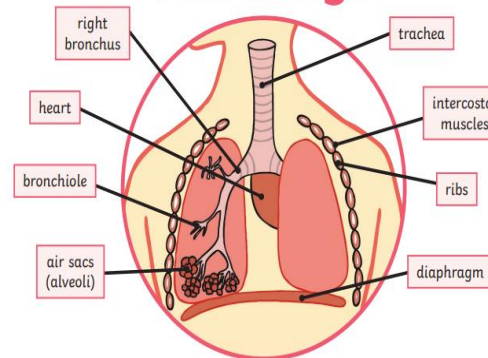
Website: <https://www.dkfindout.com/uk/human-body/>
<https://www.bbc.co.uk/bitesize/topics/zcyycdm/articles/z9w9r2p>

Mammals have **hearts** with four chambers. Notice how the blood that has come from the body is **deoxygenated**, and the blood that has come from the lungs is **oxygenated** again. The blood isn't actually red and blue: we just show it like that on a diagram.



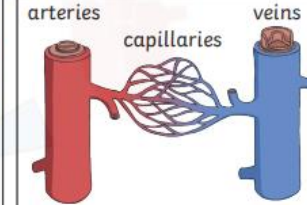
deoxygenated blood → **oxygenated blood**

The Lungs



Capillaries are the smallest **blood vessels** in the body and it is here that the exchange of water, nutrients, oxygen and carbon dioxide takes place.

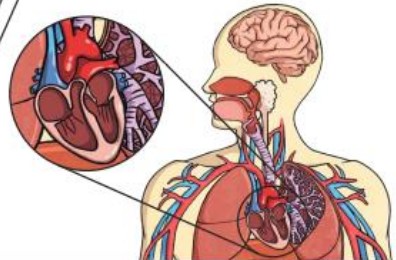
Arteries carry **oxygenated blood** away from the **heart**.



Veins carry **deoxygenated blood** toward the **heart**.

If you linked up all of the body's blood vessels, including arteries, capillaries, and veins, they would measure over 60,000 miles.

The **heart** pumps blood to the lungs to get oxygen. It then pumps this **oxygenated blood** around the body.



Plasma is liquid. The other parts of your blood are solid.

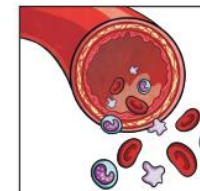


Red blood cells carry oxygen through your body.

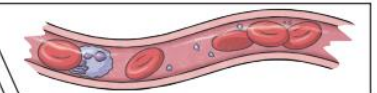
Platelets help you stop bleeding when you get hurt.



White blood cells fight infection when you're sick.



The liquid part of blood contains water and protein. This is called plasma.



Blood transports:

- gases (mostly oxygen and carbon dioxide);
- **nutrients** (including water);
- waste products.