

Key Vocabulary

Internal organs

Heart

Lungs

Liver

Kidney

Brain

Skeleton

Muscle

Digest

Circulatory system

Blood

Blood vessels

Impact

Diet

Exercise

Drugs

Lifestyle

Nutrients

Water

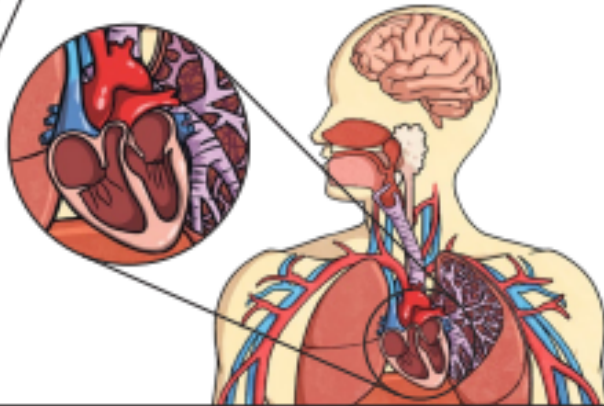
Damage

Alcohol

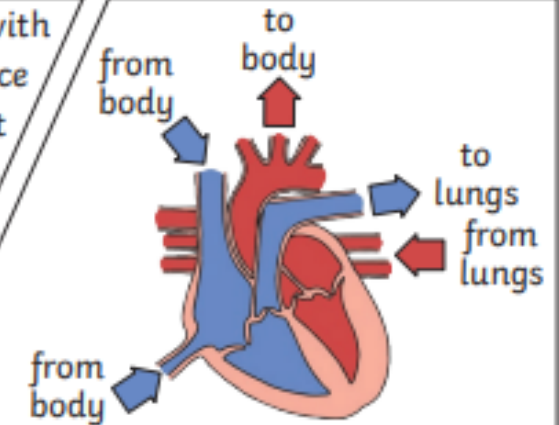
Substance

The **heart** pumps blood to the lungs to get oxygen.

It then pumps this **oxygenated blood** around the body.



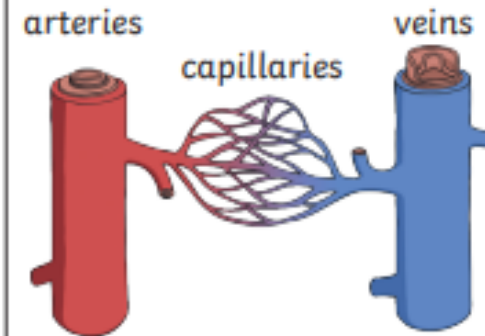
Mammals have **hearts** with four chambers. Notice how the blood that has come from the body is **deoxygenated**, and the blood that has come from the lungs is **oxygenated** again. The blood isn't actually red and blue: we just show it like that on a diagram.



deoxygenated blood → ← **oxygenated blood**

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.

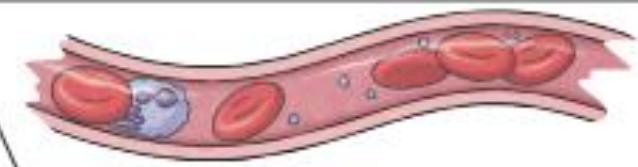
Key Questions:

Can you identify and name parts of the circulatory system?

Can you explain the function of the heart, blood vessels and blood?

Can you explain the impact of a healthy/unhealthy lifestyle?

Can you explain how nutrients and water are transported? within animals, including humans?



Blood transports:

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

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

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



Platelets help you stop bleeding when you get hurt.



Red blood cells carry oxygen through your body.



White blood cells fight infection when you're sick.

Drugs, **alcohol** and smoking have negative effects on the body.

A healthy diet involves eating the right types of **nutrients** in the right amounts.



Regular exercise:

- strengthens muscles including the heart muscle;
- improves circulation;
- increases the amount of oxygen around the body;
- releases brain chemicals which help you feel calm and relaxed;
- helps you sleep more easily;
- strengthens bones.

It can even help to stop us from getting ill.

