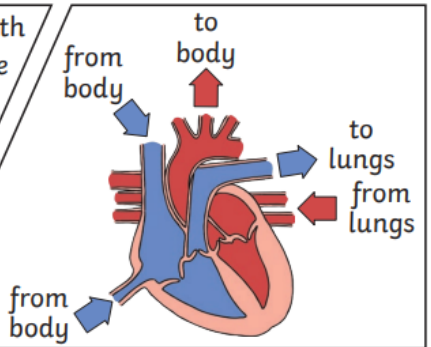
CIRCULATORY SYSYTEM – RED SQUIRREL CLASS

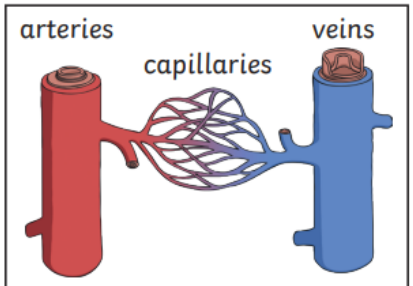
Mammals have **hearts** with four chambers. Notice how the blood that has come from the body is **deoxygenated**, and the blood that has come from the lungs is **oxygenated** again. The blood isn't actually red and blue: we just show it like that on a diagram.



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.

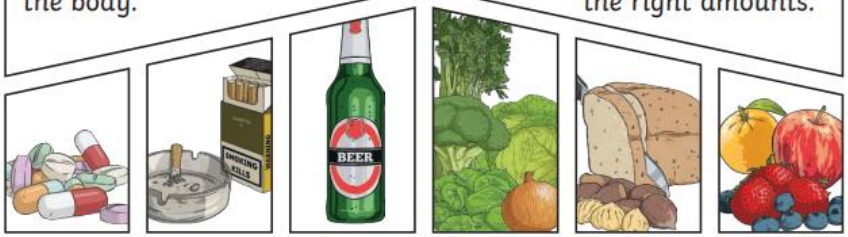
Arteries carry **oxygenated blood** away from the **heart**.



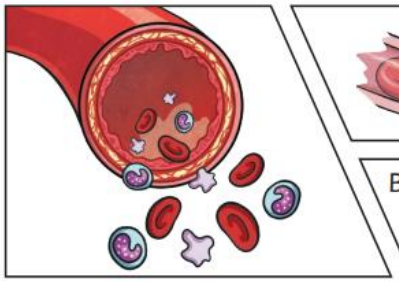
Veins carry **deoxygenated blood** toward the **heart**.

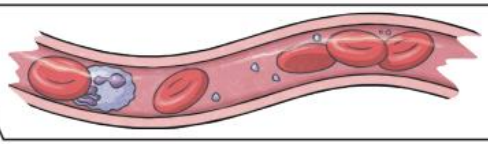
If you linked up all of the body's blood vessels, including arteries, capillaries, and veins, they would measure over 60,000 miles.

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



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



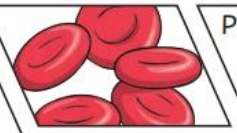


The liquid part of blood contains water and protein. This is called plasma.

Blood transports:

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

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.

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.

Links to previous learning:

- Animals including humans
- Scientists and Inventors

Important people and places:

- Daniel Hale Williams
- William Harvey
- Alexander Fleming