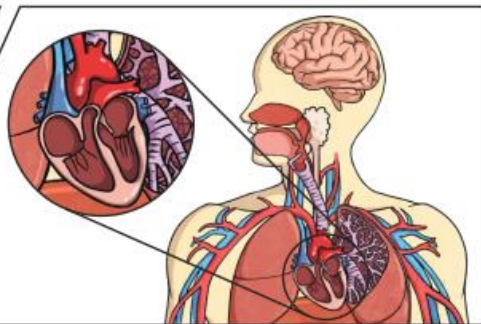


# Year 6 Knowledge Organiser- Animals including Humans

Key Vocabulary	
Alcohol	A drug produced from grains, fruits or vegetables when they are put through a process called fermentation.
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.
Circulatory system	A system which includes the heart, veins, arteries and blood transporting substances around the body.
Deoxygenated blood	Blood where most of the oxygen has already been transferred to the rest of the body.
Drug	A substance containing natural or man-made chemicals that has an effect on your body when it enters your system.
Heart	An organ which constantly pumps blood around the circulatory system.
Nutrients	Substances that animals need to stay alive and healthy.
Oxygenated blood	Blood that has more oxygen in it. It is pumped from the heart to the rest of the body.

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






## Prior Knowledge

Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene (Year 2)

Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. (Year 3)

Describe the simple functions of the basic parts of the digestive system in humans. (Year 4)

Identify the different types of teeth in humans and their simple functions. (Year 4)

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.	

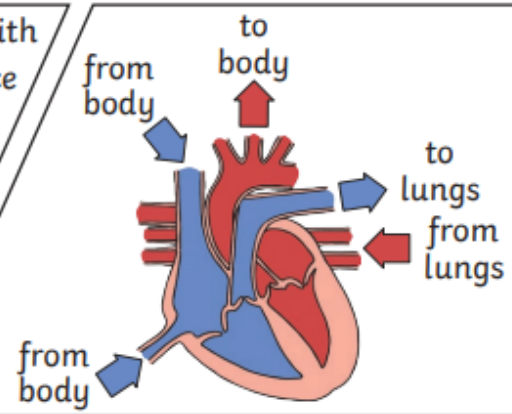
**Drugs, alcohol** and smoking have negative effects on the body.

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



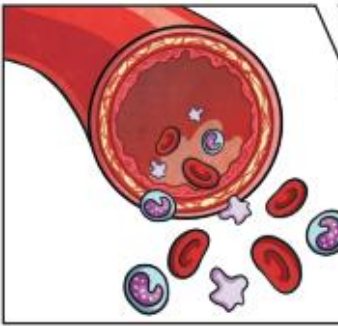
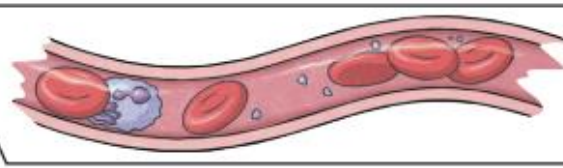
# Year 6 Knowledge Organiser- Animals including Humans

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.



from body to body  
to lungs from lungs  
from body

**deoxygenated blood** → ← **oxygenated blood**

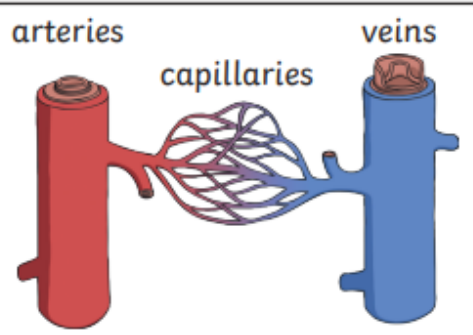
Blood transports:

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

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

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**.



arteries capillaries veins

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.

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.

