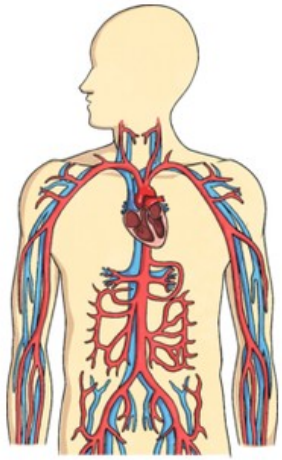
Animals including humans

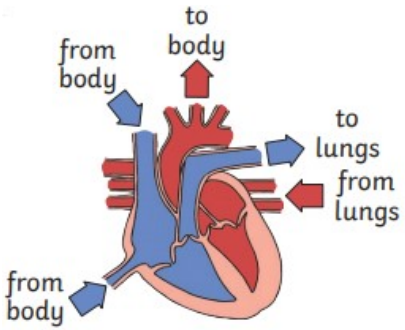
Year 6

The **circulatory system** is your body's delivery system. It is made up of your heart, blood and blood vessels.



The human body needs a constant supply of blood to keep working. **Blood delivers oxygen** to all of the body's cells—without this, cells would die. The circulatory system gets blood (and the oxygen) all around your body.

This system is centred on the **heart**. Mammals have hearts with four chambers. The heart pumps blood to the lungs where it picks up oxygen. This **oxygenated blood** is then returned to the heart so it can be pumped to the rest of the body in **arteries**. The blood coming back from the body is **deoxygenated**. **Veins** are vessels that bring blood back to the heart.



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	This has more oxygen. It is pumped from the heart to the rest of the body.
deoxygenated blood	This is the blood where most of the oxygen has already been transferred to the rest of the body.
drug	A substance containing a natural or man-made chemical that has an effect on your body when it enters your system.
nutrients	Substances that animals need to stay alive and healthy.

Impact of diet, exercise and drugs

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

A **drug** is a chemical that has an effect on your body. Some drugs are prescribed by the doctors to make people healthy. Others can have a dangerous effect on our health.

As we **exercise**, our muscles need more oxygen. So, we breathe quicker, helping our lungs take in more oxygen.

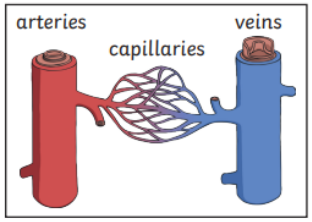
Our heart needs to pump blood more quickly to get all of the oxygen around the body so our heart rate increases.

Regular exercise helps our bones and muscles to become stronger. It also helps the heart and lungs to become healthier.

Transportation

Blood transports:

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



Capillaries are the smallest blood vessels in the body.

It is here that the exchange of water, nutrients, oxygen and carbon dioxide takes place.

Knowledge objective	Self-assessment (✓)
I can identify and name the main parts of the human circulatory system.	
I can describe the functions of the heart, blood vessels and blood.	
I can recognise the impact of diet, exercise, drugs and lifestyles on the way our bodies function.	
I can describe the ways in which nutrients and water are transported within animals, including humans.	