


Key vocabulary	
aorta	The main artery that carries blood from the heart.
arteries	The large vessels that carry blood through the heart, around to every part of your body.
atrium	The part of the heart that receives blood from the veins.
blood	The red liquid pumped around the body by the heart. It transports oxygen, nutrients and water to all the parts of the body.
blood vessels	The narrow tubes which our blood flows through including the arteries, veins and capillaries.
capillaries	The smallest of the body's blood vessels.
carbon dioxide	A heavy colour gas released when humans breathe out.
circulatory system	This circulates blood through the body. It consists of the heart, blood and blood vessels.
de-oxygenated	Oxygen has been removed.
heart	The heart pumps blood around your body.
lungs	Two organs situated in the ribcage that fill with air when you breathe in. They remove carbon dioxide from blood and add oxygen.
oxygen	Colourless gas, humans need to breathe in to live.
oxygenated	Oxygen has been added.
pulse	Each time the heart beats it can be felt as a pulse in the arteries. Typically, in the wrist and neck.
veins	A blood vessel that carries blood that is low in oxygen content from the body back to the heart.
ventricle	The part of the heart from which blood passes into the arteries.

Animals including humans - Year 6

Significant scientist	
William Harvey (1578-1657) 	William Harvey was an English physician and the first person to correctly describe blood's circulation in the body. He showed that arteries and veins form a complete circuit.

Healthy bodies

Diet, exercise, drugs and other lifestyle choices have an impact on how our bodies function. This can affect how well our heart and lungs work and how fit and well we feel.

Some choices such as smoking, drinking alcohol and obesity can be harmful to our health:

Smoking

Can cause shortness of breath, heart and lung disease.

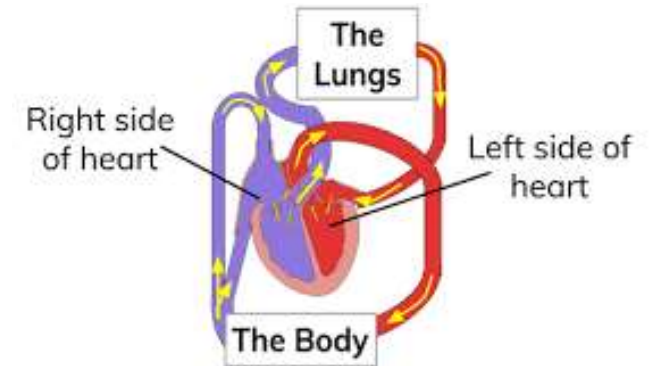
Alcohol

Too much alcohol can damage the liver, heart and stomach.

Why is exercise so important?

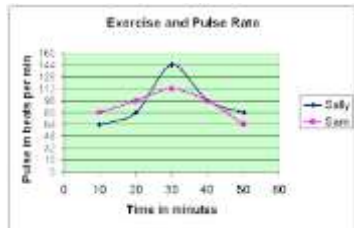
Exercise can increase fitness, make you feel physically and mentally healthier, strengthen your heart and improve your lung function.

The human circulatory system



- The **heart** pumps **blood** in the **blood vessels** to the **lungs** where oxygen goes into the **blood** and carbon dioxide is removed.
- The **blood** goes back to the **heart**.
- It is then pumped around the body so that water, nutrients and oxygen are transported in the **blood** to the muscles and all the other parts of the body where they are needed. As all these are used, they produce carbon dioxide and other waste products.
- Carbon dioxide is carried by the **blood** in **blood vessels** back to the **heart**.
- The cycle starts again as the carbon dioxide is then transported back to the lungs to be removed from the body.

The circulatory system transports nutrients and water in the blood to all the parts of the body that need them. These nutrients provide us with energy.



Our pulse rate increases when we do exercise.