

Science Knowledge Organiser



**Topic: Animals, including humans:
Circulation, exercise and diet**

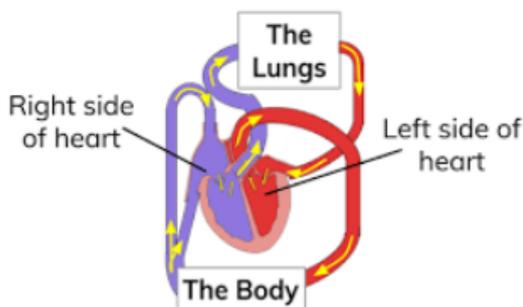
**Year 6: Autumn
Term**

Strand: Biology

What should I already know?

- That the body has several different systems: skeletal, digestive and reproductive
- We breathe in oxygen and breathe out carbon dioxide
- Diet and exercise can affect health
- What a balanced diet means
- That smoking and drinking alcohol is bad for the body

The human circulatory system

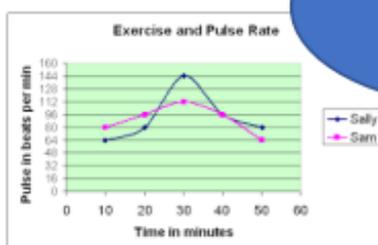


- The **heart** pumps **blood** in the **blood vessels** to the lungs where oxygen goes into the **blood** and carbon dioxide is removed.
- The **blood** goes back to the **heart**.
- It is then pumped around the body so that water, nutrients and oxygen are transported in the **blood** to the muscles 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.

Key vocabulary

heart	The heart pumps blood around your body.
pulse	Each time the heart beats it can be felt as a pulse in the arteries. Typically, in the wrist and neck.
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.
lungs	Two organs situated in the ribcage that fill with air when you breathe in. They remove carbon dioxide from blood and add oxygen.
circulatory system	This circulates blood through the body. It consists of the heart, blood and blood vessels.
diet	The sort of food animals or humans regularly eat.
exercise	Activity that requires physical effort, carried out to sustain or improve health and fitness.
drugs	A medicine or other substance that has an effect in a person's body.
lifestyle	The way in which a person lives.

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.

Why is exercise so important?

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

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.