



Science – Year 6 Summer 1  
**Animals including humans**  
 The Circulatory System  
 (Previous knowledge – Year 5 – human life cycle)

### Vocabulary

| Tier 1   | Tier 2    | Tier 3            |
|----------|-----------|-------------------|
| Heart    | Organ     | Circulation       |
| Blood    | System    | Blood vessels     |
| Body     | Lifestyle | Arteries          |
| Food     | Function  | Veins             |
| Water    | Impact    | Capillaries       |
| Health   | Transport | Oxygen            |
| Exercise | Balanced  | Carbon dioxide    |
| Sleep    | Nutrients | Red blood cells   |
| Energy   | Exercise  | White blood cells |
| Lungs    | Harmful   | Absorb            |

 don't know  
  I know this word  
  I can use it in a sentence

### Useful Resources

<https://kidshealth.org/en/parents/heart.html>  
[https://www.youtube.com/watch?v=CWFvxn0aDEU&ab\\_channel=MayoClinic](https://www.youtube.com/watch?v=CWFvxn0aDEU&ab_channel=MayoClinic)

### Key Objectives:

- Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels, and blood.
- Recognise the impact of diet, exercise, drugs, and lifestyle on how our bodies function.
- Describe how nutrients and water are transported within animals, including humans.

We will be learning how the circulatory system works. This includes the **heart, blood,** and **blood vessels,** and how they work together to transport **oxygen, nutrients,** and waste. We will be learning how diet, exercise, drugs, and our lifestyle choices affect how well our bodies work. We'll explore what makes a healthy lifestyle and why some habits can be harmful. We will also be learning how nutrients and water are absorbed into the blood from the digestive system and carried to every part of the body.

### What is the circulatory system?

The circulatory system is the body's transport system. It moves blood, oxygen, and nutrients around the body and takes away waste products like carbon dioxide. It includes the heart, blood vessels, and blood.

Heart – A muscular organ that pumps blood around the body.

Arteries – Carry blood away from the heart.

Veins – Carry blood back to the heart.

Capillaries – Tiny vessels where oxygen and nutrients move into the cells.

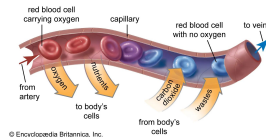
Blood – Carries oxygen, nutrients, and waste around the body.

### Why are diet and lifestyle important?

Diet gives us the energy and nutrients we need. A healthy diet includes fruits, vegetables, protein, carbohydrates, and healthy fats. Exercise strengthens our heart, muscles, and lungs and helps keep our weight healthy. Drugs, alcohol, and smoking can damage organs and stop our body from working properly. Our lifestyle choices, like how much sleep and water we get, also affect how we feel and function.

### How are nutrients and water transported?

After we eat, our food is broken down in the digestive system. Nutrients and water pass into the bloodstream in the small intestine. The blood then transports them to where they are needed in the body. Waste products are carried away and removed by organs like the kidneys and lungs.



### Key Scientist: William Harvey (1578–1657)

William Harvey was an English doctor who discovered how blood moves around the human body. Before his work, people believed blood was made in the liver and used up. Harvey proved that the heart pumps blood in a continuous loop through the body — this is called circulation. His discoveries helped us understand the circulatory system and changed medicine forever.

