



St John Fisher RC Primary School

Year 6 Knowledge Organiser – Spring Two - Science

What we will be learning

I know:

The Circulatory System

Lesson 1

- How to explain the circulatory system.

Lesson 2

- How blood transports nutrients and oxygen.
- How to explain that how the heart pumps blood around the body.

Lesson 3

- How to explain the difference between oxygenated and deoxygenated blood.

Lesson 4

- How a heart is dissected so that we are able to see the different parts.

Diet, Drugs and Lifestyle

I know:

Lesson 5

- The importance of a balanced diet.
- The harm that cigarettes and drugs cause.
- Plan a heart rate experiment.

Lesson 6

- How to investigate and evaluate a heart rate experiment.

Key Knowledge: How the heart and circulatory system work together

Note: The human heart is a vital organ that pumps blood around our bodies. It has four main parts: the left and right atria, which receive blood, and the left and right ventricles, which push blood out. The circulatory system also includes blood vessels, such as arteries, veins, and capillaries, which carry blood to and from the heart. This system is important because it delivers oxygen and nutrients to our cells and removes waste products. Without the heart and circulatory system, our bodies would not function properly, making them essential for our health and survival.

Animals Including Humans - Key Facts to Remember

- **The Heart is a Muscle:** Your heart is a strong muscle that pumps blood around your body. It beats about 100,000 times a day!
- **Four Chambers:** The heart has four chambers: the left atrium, the left ventricle, the right atrium, and the right ventricle. Each chamber has a special job to help move blood.
- **Blood Vessels:** Blood travels through tubes called blood vessels. There are three main types: arteries, veins, and capillaries. Arteries carry blood away from the heart, while veins bring it back.
- **Oxygen and Carbon Dioxide:** The heart helps to transport oxygen from the lungs to all parts of the body. It also sends carbon dioxide, a waste gas, back to the lungs to be exhaled.
- **Circulatory System:** The heart and blood vessels make up the circulatory system. This system is very important because it keeps us healthy by delivering nutrients and oxygen to our cells.

Key Vocabulary and Glossary

- **Heart:** The heart is a muscular organ about the size of your fist. It pumps blood around the body, giving us energy and helping us stay alive.
- **Circulatory System:** This system includes the heart, blood vessels, and blood. It carries oxygen and nutrients throughout the body and removes waste products.
- **Arteries:** Arteries are blood vessels that carry oxygen-rich blood away from the heart to the rest of the body. They are thick and elastic to handle the high pressure of the blood.
- **Veins:** Veins carry blood back to the heart. They have thinner walls than arteries and often have valves to prevent the blood from flowing backwards.
- **Capillaries:** These are tiny blood vessels where oxygen and nutrients are exchanged with the cells in our body. They connect arteries and veins.
- **Oxygen:** A gas that we breathe in. Oxygen is essential for our cells to produce energy.
- **Nutrients:** Substances in our food that give our body the energy and materials it needs to grow and repair itself.
- **Blood:** A red liquid that carries oxygen, nutrients, and waste throughout our body. It helps keep us healthy.
- **Waste Products:** Unwanted materials that our body needs to get rid of. They are produced when our cells use energy.
- **Pump:** The action of the heart! It beats to move blood around the circulatory system.

