

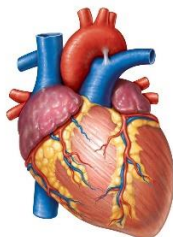


St James' Church of England Primary School

Science Overview Sheet



Year 6 – Circulatory System



Rationale: Pupils should build on their learning from years 3 and 4 about the main body parts and internal organs (skeletal, muscular and digestive system) to explore and answer questions that help them to understand how the circulatory system enables the body to function.

Pre-unit task: Knowledge Organiser Quizzes

Working Scientifically:

- *Exploring the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.*

Additional suggestions beyond NC2014 to support pupils working scientifically and to provide an opportunity to use ICT to collect and interpret data

- *Observing/measuring changes to breathing, heart beat and or pulse rates after exercise*

Statutory Requirements:

- **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 exercise on the way their bodies function.**
- **Describe the ways in which nutrients and water are transported within animals, including humans.**
- The heart is a major organ and is made of muscle.
- The heart pumps blood around the body through vessels and this can be felt as a pulse.
- The heart pumps blood through the lungs in order to obtain a supply of oxygen
- Blood carries oxygen and other essential materials to different parts of the body.
- During exercise, muscles need more oxygen so the heart beats faster and our breathing and pulse rates increase.
- Animals are alive; they move, feed, grow, use their senses, reproduce, **breathe/respire** and excrete.

Overview:

Lesson 1: The Heart - To know the three main parts of the circulatory system and describe the job of the heart.
Lesson 2: Blood - To describe the important jobs of the blood vessels and blood.
Lesson 3: Investigating Heart Rate - To be able to describe the importance of exercise and how it affects the heart
Lesson 4: The Benefits of Exercise - To understand that regular exercise is important for a healthy body.
Lesson 5: Diet and Exercise - To be able to explain how diet and exercise affect the body
Lesson 6: Drugs and Alcohol - To be able to recognise the impact of drugs and alcohol on the way bodies function.

Cross Curricular Links

Resources

Mini whiteboards and pens, hula hoops, skipping ropes, cone markers, stethoscopes (optional) Plastic container, table tennis balls, red aqua beads, red craft foam, beaker, straws, stopwatches, PE kit

Notes and Guidance

Most Children will: • Children can state the three main parts of the circulatory system and describe the job of the heart. • Children can describe the important jobs of the blood vessels and blood. • Children can discuss how heart rate is affected by exercise. • Children can understand that regular exercise is important for a healthy body.

Less Able Children will: • With scaffolding and/or support, children can state the three main parts of the circulatory system and say at least one job that the heart does. • With scaffolding and/or support, children can describe the important jobs of the blood vessels and blood. • With scaffolding and/or support, children can discuss how heart rate is affected by exercise. • With scaffolding and/or support, children can understand that regular exercise is important for a healthy body.

More Able Children will: confidently discuss the three parts of the circulatory system and understand the jobs that the heart does. • Children can confidently describe the important jobs of the blood vessels and blood and explain the different aspects of their blood model. • Children can confidently discuss how heart rate is affected by exercise.