



Jerry Clay Academy Subject Knowledge Organiser

Subject: Science (Animals including humans) Year Group: 6 Term: Autumn

Core Learning of This Unit:

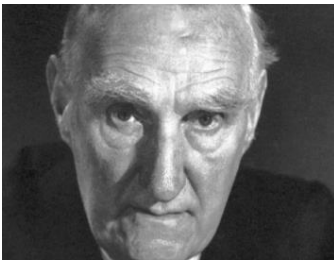
- To know that the circulatory system is made up of the heart, the lungs, blood and the vessels it travels through. Its function is to transport nutrients, gases and wastes between the cells of the body and other systems (digestive/respiratory system).
- To know the effect of lifestyles on bodies
- To know and investigate the effects that exercise has on the body. During exercise the heart rate and breathing rate increase to provide more oxygen to the muscles and to remove carbon dioxide quicker
- To know that regular exercise can lead to stronger muscles and bones. The heart will become stronger with a reduced risk of heart disease. There is also an increase in lung capacity.
- To explore the impact of diet, exercise, drugs and lifestyle on the way human bodies function.
- To use scientific language to describe the ways in which nutrients and water are transported within human body.

Prior Learning:

From KS1: Children should be able to name parts of the human body and be aware of balanced diet and healthy life styles.

From KS2 : Children should know about nutrition and the skeleton, the digestive system and changes as humans develop to old age

From Year 5: Describe changes as humans develop into old age



National Curriculum Statements:

Pupils should be taught to:

- 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 the way their bodies function
- describe the ways in which nutrients and water are transported within animals, including humans.

Key Vocabulary:

- Heart: the organ that pumps blood around the body.
- Lungs: the organ that gathers in air as part of breathing.
- Blood: the liquid that transports oxygen around the body. •
- Oxygen: the gas in the air that is needed for respiration.
- Vein: blood vessel carrying blood back to the heart. •
- Artery: blood vessel carrying blood away from the heart. •
- Exercise: the activity of exerting your muscles in various ways to keep fit.
- Addiction: when you feel an uncontrollable urge to do something as it makes you feel good.
- Nicotine: the addictive substance in cigarettes.
- Cancer: a disease caused by an uncontrolled division of abnormal cells in a part of the body.
- System: a set of organs in the body with a common structure or function.
- Circulatory System: the system that circulates blood and lymph through the body.

Significant People

John Boyd Orr was a doctor in the trenches during World War I and witnessed the impact of poor diet on the poor health of the soldiers. After the war he set up the Rowett Research Institute and was the first scientist to show that there was a link between poverty, poor diet and illness.