



## Jerry Clay Academy Subject Unit Overview



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

### Core Learning of This Unit:

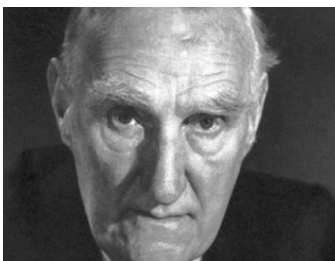
- To know that the circulatory system is made up of the heart, the lungs, blood and the vessels it travels through. Its function is to transport nutrients, gases and wastes between the cells of the body and other systems (digestive/respiratory system).
- To know the effect of lifestyles on bodies
- To 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:

- **circulatory system**-a system which includes the heart, veins, arteries and blood transporting substances around the body.
- **heart**-an organ which constantly pumps blood around the circulatory system.
- **blood**-the red liquid that flows around your body.
- **blood vessels**-tube like structures that carry blood through the tissues and organs.
- **oxygenated blood**- has more oxygen. It is pumped from the heart to the rest of the body.
- **deoxygenated blood**-is blood where most of the oxygen has already been transferred to the rest of the body.
- **pulse**-the regular beating of the heart that can be felt in the neck or the wrist.
- **nutrients**- substances needed to stay alive and healthy.
- **calories**-a unit for measuring the amount of energy food provides.
- **drugs**-a substance containing natural or man-made chemicals that has an effect on your body when it enters your system.
- **alcohol**-a liquid that is produced in making wine, beer or liquor and can cause behaviour changes in people who drink it.

### 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.