



Topic Title: Superhuman

Year Group: 6

Academic Year: 2019/2020

Science Intent:

What makes us Superhuman?

Let's explore the human circulatory system and discover how exercise and diet can improve performance.

Prior Scientific Learning/Linked Topics:	Literacy Links (including texts/media used):	Maths Links:
<p>Y3-</p> <p>Y4-</p> <p><i>Pupils will 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.</i></p>	<p>WRITING TO INFORM:</p> <ul style="list-style-type: none">• Usain Bolt Biography• Instructions for a warm up• Non chronological report <p>WRITING TO ENTERTAIN/INFORM:</p> <ul style="list-style-type: none">• Blood smoothie cooking show <p>WRITING TO PERSUADE:</p> <ul style="list-style-type: none">• Letter to the government to increase junk food prices/sugar tax <p>Wonder by R G Palacio</p>	<ul style="list-style-type: none">• Statistics• Measures inc conversion• Decimals• Averages



No Limits
To Learning!

Scientific Knowledge	Working Scientifically	
<ul style="list-style-type: none"> • 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 (Covered in PSHE) • describe the ways in which nutrients and water are transported within animals, including humans 	<ul style="list-style-type: none"> • planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • using test results to make predictions to set up further comparative and fair tests • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations • identifying scientific evidence that has been used to support or refute ideas or arguments 	
<p>Content:</p> <ul style="list-style-type: none"> • Using strawberries, marshmallows, sprinkles and pineapple juice, the children will use clues about the components of blood to decide what each ingredient represents. To demonstrate their understanding, the children will plan, write and present a short TV show. • Using Andrew Mason’s art graphics of blood cells, the children create an artist’s impression of red blood cells, white blood cells and platelets. • The children will follow a step by step guide to build their own paper heart and use this to explain its function. • The children will investigate the heart rates from different animals as well as different ages and levels of fitness of humans. Why do the heart rates vary? • To reinforce their understanding of the heart, the children will dissect lamb’s hearts. • Investigate how and why their bodies change with exercise. Develop a greater awareness of their hearts and how they work. Collect evidence by 		



making observations and measurements.

- Investigate and analyse how the body recovers after exercise. Collect evidence by making observations and measurements.
- Analyse and interpret data about the heart rate. Use their understanding of the effect of exercise and rest on pulse rate to solve problems.
- Children will extend their knowledge of the digestive system from Y4 by using jelly snakes, eggs and skittles practically to understand how water nutrients are absorbed.
- Role Play circulatory system
- Examine food diaries then look at the effects (pros and cons) of sugar, salt, fats and water on the human body and consider what the children think is a healthy diet. Discuss processed foods can chn identify all of the ingredients and note hidden sugar and salt?
- Should the price of junk food and drinks increase? Children to write a letter to persuade the government.

Key Vocabulary: At the beginning of each topic, the children have the opportunity to explore, learn and understand the key vocabulary.

circulatory system, heart, blood, blood vessels, capillaries, veins, arteries, valve, pumps, oxygen, oxygenated, deoxygenated, carbon dioxide, lungs, nutrients, water, diet, exercise, drugs, lifestyle, heart rate

Stunning Start/Marvellous Middle/Fabulous Finish:

What does 100m actually look like?
 How long does it take you to run 100m?
 How fast is Usain Bolt?

OAA/Trips/Visits/Visitors:

Trip to Twickenham Rugby Stadium