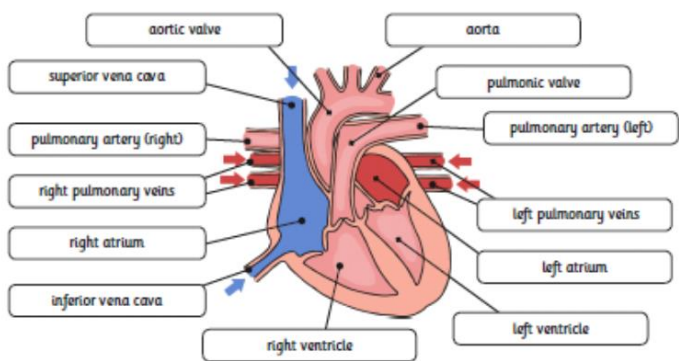
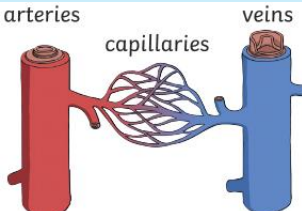
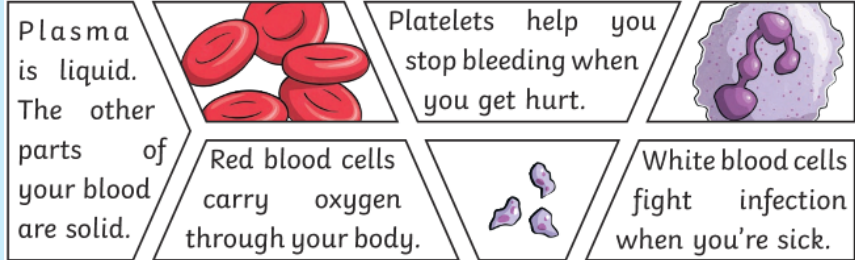


Animals including humans – Year 5 & 6 – Autumn 2 Term 2024

National Curriculum Science - Knowledge	Key Learning	Vocabulary
<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. Describe the ways in which nutrients and water are transported within animals, including humans. 	<p>The heart pumps blood in the blood vessels around to the lungs. Oxygen goes into the blood and carbon dioxide is removed. The blood goes back to the heart and is then pumped around the body.</p> 	<p>Circulatory System A system which includes the heart, veins, arteries and blood transporting substances around the body.</p> <p>Heart An organ which constantly pumps blood around the circulatory system.</p> <p>Blood vessels The tube-like structures that carry blood through the tissues and organs. Veins, arteries and capillaries are the three types of blood vessels.</p>
<p>National Curriculum – Working Scientifically</p>	<p>Mammals have hearts with four chambers. Notice how the blood that has come from the body is deoxygenated, and the blood that has come from the lungs is oxygenated again. The blood isn't actually red and blue: we just show it like that on a diagram.</p>	<p>Oxygenated blood Oxygenated blood has more oxygen. It is pumped from the heart to the rest of the body.</p> <p>Deoxygenated blood Deoxygenated blood is blood where most of the oxygen has already been transferred to the rest of the body.</p>
<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. 	<p>Capillaries are the smallest blood vessels in the body and it is here that the exchange of water, nutrients, oxygen and carbon dioxide takes place.</p> <p>Arteries carry oxygenated blood away from the heart. Veins carry deoxygenated blood toward the heart. If you linked up all of the body's blood vessels, including arteries, capillaries, and veins, they would measure over 60,000 miles.</p> 	<p>Drug A substance containing natural or man-made chemicals that has an effect on your body when it enters your system.</p> <p>Alcohol</p>

<ul style="list-style-type: none"> 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 a 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. 	<div style="border: 1px solid black; padding: 5px;"> <p>Plasma is liquid. The other parts of your blood are solid.</p>  <p>Red blood cells carry oxygen through your body.</p> <p>Platelets help you stop bleeding when you get hurt.</p> <p>White blood cells fight infection when you're sick.</p> </div> <p>Regular exercise:</p> <ul style="list-style-type: none"> strengthens muscles including the heart muscle; improves circulation; increases the amount of oxygen around the body; releases brain chemicals which help you feel calm and relaxed; helps you sleep more easily; strengthens bones. <p>It can even help to stop us from getting ill.</p> <p>A healthy diet involves eating the right types of nutrients in the right amounts.</p> <p>Illegal drugs, alcohol and smoking have negative effects on the body.</p>	<p>A drug produced from grains, fruits or vegetables when they are put through a process called fermentation.</p> <p>Nutrients Substances that animals need to stay alive and healthy.</p>
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Key Questions – Learning Sequence	
1	What are the main parts of the human circulatory system?
2	What are the main jobs of blood vessels and blood?
3	What affects heart rate?
4	What are the benefits of exercise?
5	How does diet and exercise affect the body?
6	What is the impact of drugs and alcohol on the body?