

 PARK LANE PRIMARY SCHOOL	YEAR 6 Animals Including Humans			SCIENCE
PRIOR KNOWLEDGE Builds on previous knowledge from LKS2 topics: • Understand the way in which water is transported within plants • Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat • The function of the digestive system is to break down food into smaller particles that can be absorbed and utilised by the body. • The function of the skeletal system is to support and protect the body.		COMMON MISCONCEPTIONS • The heart makes blood: Blood is made in the bone marrow; the heart circulates blood around the body. • Blood is red and blue: Blood is always red, regardless of whether it is oxygenated or deoxygenated. Blood in veins appears blue because of the way light interacts with it. • Food provides us with energy: Food provides our bodies with several important things our bodies need to function, such as energy, nutrients, minerals and water. • All drugs are bad for you: Although some drugs have negative effects on the body, medicines are drugs prescribed by doctors to help treat illnesses.		
Lesson Intention	National Curriculum Reference	Scientific Enquiry	Rocket Words	Resources
Understand the function of the heart and its role in the circulatory system	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood	Identifying, Classifying & Grouping Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, with increasing independence	➤ Dr Katherine Dibb (Cardiovascular expert) circulatory system atrium ventricle vessel valves	Pipe cleaners, plasticine, craft materials, colouring pencils, mini whiteboards, pen, pencil
Identify and compare blood vessels	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood	Observing Over Time Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate	vessel artery vein capillary microscope	Water (with dye), disposable paper cups, modelling clay, nail/cocktail stick, pen, pencil, stopwatch
Explore blood	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood	Identifying, Classifying & Grouping Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, with increasing independence	blood plasma platelet white blood cell red blood cell	Protractor, ruler, pen, pencil, compass, computers, mini whiteboards

Learn how the body transports water and nutrients	Describe the ways in which nutrients and water are transported within animals, including humans	Researching Using Secondary Sources: Identifying scientific evidence that has been used to support or refute ideas or arguments	absorb diffusion osmosis concentration nutrients	Demonstration: 2 eggs, water, sugar, 2 glasses, gummy bears, different liquids (milk, cola/soda, distilled water, sugar, salt), beakers/cups/test tubes, pen, pencil, ruler
Investigate what affects your heart rate	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	Comparative & Fair Testing (Controlled Investigations) Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	➤ Sir Richard Doll (smoking & health expert) diet exercise heart rate BPM pulse	Timers/stopwatches, heart rate monitors (if possible), PE equipment and attire, foods chosen by children
Learn about the impact of drugs and alcohol on the body	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	Answering Questions through Collecting, Analysing & Presenting Data (Problem-Solving) 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	drug painkiller stimulant depressant hallucinogens	Pen, pencil, colouring pencils, coloured paper, computers