



Science Core Curriculum
Year 6

Unit	Animals including humans Blood & Transportation The heart and health	Living things and their habitats	Evolution & inheritance	Light	Electricity	Looking after the environment
Substantive Knowledge	<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 	<ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics 	<ul style="list-style-type: none"> Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution 	<ul style="list-style-type: none"> Recognise that light appears to travel in straight lines Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them 	<ul style="list-style-type: none"> Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches Use recognised symbols when representing a simple circuit in a diagram 	<ul style="list-style-type: none"> Learn about climate change <ul style="list-style-type: none"> Explore ways to reduce how much rubbish is sent to landfill. Explore ways to reduce energy consumption Explore what happens when fuels are burnt Explore the outcomes of COP26 Compare data associated with the weather

<p>Disciplinary knowledge</p>	<ul style="list-style-type: none"> Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 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 Identifying scientific evidence that has been used to support or refute ideas or arguments Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary 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 	<ul style="list-style-type: none"> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs Report and present 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 Identify scientific evidence that has been used to support or refute ideas or arguments. Grouping and classifying. 	<ul style="list-style-type: none"> Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Identify scientific evidence that has been used to support or refute ideas or arguments. 	<ul style="list-style-type: none"> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary Use test results to make predictions to set up further comparative and fair tests Identify scientific evidence that has been used to support or refute ideas or arguments. Record data and results of increasing complexity using scientific diagrams and labels Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 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 	<ul style="list-style-type: none"> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs Report and present 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 Using test results to make predictions to set up further comparative and fair tests 	<ul style="list-style-type: none"> Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 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 <ul style="list-style-type: none"> Using test results to make predictions to set up further comparative and fair tests
--------------------------------------	---	--	--	---	--	---

Key Vocab	Animals including humans:	Living things and their habitats:	Evolution and inheritance:	Light:	Electricity:	Looking after the environment:
	circulatory system atrium ventricle vessel valves artery vein capillary microscope blood plasma platelet white blood cell red blood cell absorb diffusion osmosis concentration nutrients diet exercise heart rate BPM Pulse drug painkiller stimulant depressant hallucinogens	classify spore micro-organism seed similarities multicellular unicellular kingdom cell MRS GREN Latin genus Carl Linnaeus class species vertebrate cold-blooded amphibian reptile mammal carbon dioxide microorganism plant oxygen microscopic mycelium fungi mushrooms yeasts hyphae	adaptation desert cactus insulating environment fossil fossilisation evidence dinosaur petrified genetically modified crop toxin resilience breeding yield generation species evolution offspring DNA Charles Darwin habitat ancestor Natural Selection extinct Mary Anning specimen prehistoric Jurassic Coast palaeontologist	light eye light source symbol scientific diagram reflected prediction fair test variable table periscope angle mirror line of sight utilise shadow block opaque transparent translucent plan sun shade real life problem rotate direction optical phenomena disperse spectrum refraction	symbol circuit circuit diagram battery wires electricity current voltage voltmeter brightness blown resistor variable resistor LED dimmer switch output variable fair test control test systematically synchronised traffic light signal sensor timer-based closed electric circuit indicating conductor insulator resistor	<hr/> weather climate prevent global warming climate change <hr/> recycle landfill rubbish biodegrade council <hr/> net zero renewable non-renewable greenhouse gase emissions <hr/> industrial revoluti fossil fuel coal combustion fuel <hr/> COP sustainability conference pledge subsidy <hr/> species sensitive natural disaster habitat vulnerable

