Content and skills in Science

	Content	Skills	Proposed topic
Year 6	• 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 • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and 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 results, in oral and written forms such	♣I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary ♣ I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate ♣ I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs ♣I can use test results to make predictions to set up further comparative and fair tests ♣ I can 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 ♣ I can identify scientific evidence that has been used to support or refute ideas or arguments	Working Scientifically

	as displays and other presentations • identifying scientific evidence that has been used to support or refute ideas or arguments.		
	• 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.	♣I can 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 ♣I can give reasons for classifying plants and animals based on specific characteristics	Living Things and their habitats
	• 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.	♣I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood ♣ I can recognise the impact of diet, exercise, drugs and lifestyle on the way my body functions ♣ I can describe the ways in which nutrients and water are transported within animals, including humans.	Animals including humans
	• recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	♣I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago ♣I can recognise that living things produce	Evolution and

	• 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.	offspring of the same kind, but normally offspring vary and are not identical to their parents ♣ I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	Inheritance
	• 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	♣I can recognise that light appears to travel in straight lines ♣I can 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 ♣ I can 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 ♣ I can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them	Light
	• associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit	♣I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit	Electricity

	• 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.	♣ I can 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 ♣ I can use recognised symbols when representing a simple circuit in a diagram.	