

Key Vocabulary	Biology	Physics	Chemistry
Year 5	<p><u>Animals including humans</u> puberty life cycle gestation growth reproduce foetus baby fertilisation toddler child teenager adult old age life expectancy adolescence adulthood early adulthood middle adulthood late adulthood childhood</p> <p><u>Living things and their habitats</u> <u>life cycles</u> mammal amphibian insect bird life process of <u>reproduction</u> <u>plants</u> animals vegetable garden flower boarder animal naturalists David Attenborough animal behaviourist Jane Goodall reproduction plants: sexual, asexual animals: sexual lifecycles around the world rainforest oceans desert prehistoric similarities differences</p>	<p><u>Earth and Space</u> Earth Sun Moon moons planets stars solar system Mercury Venus Mars Jupiter Saturn Uranus Neptune Pluto rotate day night Aristotle Ptolemy Galileo Copernicus Brahe Alhazen orbit axis spherical heliocentric geocentric hemisphere season tilt</p> <p><u>Forces</u> gravity air resistance water resistance friction surface force effect move accelerate decelerate stop change direction brake mechanism pulley gear spring theory of gravitation Galileo Galilei Isaac Newton</p>	<p><u>Properties and changes of materials</u> properties hardness solubility transparency electrical conductor thermal conductor response to magnets dissolve solution <u>separate</u> separating solids liquids gases evaporating reversible changes dissolving mixing evaporation filtering <u>sieving</u> melting irreversible new material burning rusting magnetism electricity chemists Spencer Silver Ruth Benerito quantitative measurements conductivity insulation chemical</p>
Year 6	<p><u>Evolution and inheritance</u> evolution adaption inherited traits adaptive traits natural selection inheritance Charles Darwin Alfred Wallace DNA genes variation parent offspring fossil environment habitat fossilisation plants animals living things</p> <p><u>Living things and their habitats</u> classify compare Linnaean Carl Linnaeus classification domain kingdom phylum class order family genus species characteristics vertebrates invertebrates microorganisms organism flowering non-flowering</p> <p><u>Animals including humans</u> internal organs heart lungs liver kidney brain skeletal skeleton muscle muscular digest digestion digestive circulatory system heart blood vessels blood impact diet exercise drugs lifestyle nutrients water damage drugs alcohol substances</p>	<p><u>Electricity</u> voltage brightness volume switches danger series circuit working safely with electricity electrical safety sign circuit diagram switch bulb buzzer motor recognised symbols</p> <p><u>Light</u> light travels straight reflect reflection light source object shadows mirrors periscope rainbow filters</p>	
LKS2 Working Scientifically	plan variables measurements accuracy precision repeat readings record data scientific diagrams, labels, classification keys, tables, scatter graphs, bar graph and line graphs predictions further comparative and fair test report and present conclusions, causal relationships, explanations, degree of trust, oral and written display and presentation evidence support, refute ideas or arguments identify, classify and describe patterns systematic quantitative measurements		

Year group	Year 5	Year 6
Working Scientifically	<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 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 	
Biology	<p><u>Living things and their habitats</u></p> <ul style="list-style-type: none"> •describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird •describe the life process of reproduction in some plants and animals <p><u>Animals including humans</u></p> <ul style="list-style-type: none"> •describe the changes as humans develop to old age 	<p><u>Living things and their habitats</u></p> <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 <p><u>Animals including humans</u></p> <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><u>Evolution and inheritance</u></p> <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
Physics	<p><u>Earth and Space</u></p> <ul style="list-style-type: none"> •describe the movement of the Earth and other planets relative to the sun in the solar system •describe the movement of the moon relative to the Earth •describe the sun, Earth and moon as approximately spherical bodies •use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky <p><u>Forces</u></p> <ul style="list-style-type: none"> •explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object •identify the effects of air resistance, water resistance and friction, that act between moving surfaces 	<p><u>Light</u></p> <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 <p><u>Electricity</u></p> <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

	<ul style="list-style-type: none"> •recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect 	bulbs, the loudness of buzzers and the on/off position of switches <ul style="list-style-type: none"> •use recognised symbols when representing a simple circuit in a diagram
Chemistry	<u>Properties and changes of materials</u> <ul style="list-style-type: none"> •compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets •know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution •use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating •give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic •demonstrate that dissolving, mixing and changes of state are reversible changes •explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda 	