Science

Progression of Knowledge

EYFS-Year 6

EYFS
Reception

Informed by new Development Matters (2020) publication

	Communication and Language	Understanding the World
Year Reception	• Learn new vocabulary. • Ask questions to find out more and to check they understand what has been said to them. • Articulate their ideas and thoughts in well-formed sentences. • Describe events in some detail. • Use talk to help work out problems and organise thinking and activities explain how things work and why they might happen. • Engage in non-fiction books. • Listen to and talk about selected non-fiction to develop a deep familiarity with new knowledge and vocabulary.	• Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Recognise some environments that are different to the one in which they live. • Understand the effect of changing seasons on the natural world around them.
ELG	• Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions. • Make comments about what they have heard and ask questions to clarify their understanding. • Hold conversation when engaged in back-and-forth exchanges with their teacher and peers. • Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. • Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, nonfiction, rhymes and poems when appropriate. • Express their ideas and feelings about their experiences using full sentences, including use of past, present and future tenses and making use of conjunctions, with modelling and support from their teacher.	• Explore the natural world around them, making observations and drawing pictures of animals and plants. • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Key Stage 1
Year 1

The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways.

	Seasonal Changes	Materials	Plants	Animals Including Humans
Year 1	• Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies.	• Distinguish between an object and the material from which it is made. • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. • Describe the simple physical properties of a variety of everyday materials. • Compare and group together a variety of everyday materials on the basis of their simple physical properties.	• Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. • Identify and describe the basic structure of a variety of common flowering plants, including trees.	• Group animals according to what they eat • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).
Vocab	**Light and dark -** bright, light, dark, black, night, day, reflective strip, reflect, torch, warning light, Sun, candle, lamp, darker, darkest, brighter, brightest, brightness, shine, spring, summer, autumn, winter.	**Materials -** materials, natural, man-made, manufactured, object, change, bake, bend, twist, stretch, squash, heat, cool, freeze, melt, boil, new material **Pushes and pulls -** push, pull, movement, twist, spin, swing, slide, swerve, hop, jump, turn, fast, slow, faster, slower, go further, safe, danger, be careful, pushing, pushed, pulling, pulled, moving	**Plants and animals in the local environment -** reproduce, produce young, produce new plants, animals, plants, shoot, within, under, next to, fruit, earth, soil, seeds **Growing plants -** plant, plants, branch, root, stem, trunk, flower, leaf, leaves, seeds, seedlings, weed, grow, growing, living, alive, not living, not alive, dead, healthy	**Ourselves** - sense, eye, ear, nose, mouth, hand, foot, feet, senses, arm, leg, head, neck, knee, wing, beak, see, hear, smell, touch, feel, alive, living, not alive, human, animal, tall, tallest, taller, like, similar to, different, difference, same, body, bodies, change, short, shorter, shortest, grow, move, adult, young **Sound and hearing -** sound, sounds, high, low, loud, quiet, shake, rattle, blow, pluck, tap, scrape, ring, silence, direction, louder, loudest, quieter, quietest, noise, soft, further away, nearer, hear, ear, faint, fainter, volume
	Year 1 - Suggested Linked Texts (Reading Across the Curriculum)			
	Tree: Seasons Come, Seasons Go *(Patricia Hegarty and Britta Teckentrup)* ***One Year with Kipper*** *(Mick Inkpen)* ***After the Storm*** *(Nick Butterworth)*	***The Great Paper Caper*** *(Oliver Jeffers)* ***Who Sank the Boat*** *(Pamela Allen),* ***The Story of Cinderella*** *(Walt Disney)*	**RSPB: My First Book of Garden Birds** (Mike Unwin and Sarah Whittley) **Snail Trail (**Ruth Brown) **Superworm** (Julia Donaldson & Axel Scheffler)	***A Little Guide to Wild Flowers*** *(Charlotte Voake)* ***The Things That I LOVE about TREES*** *(Chris Butterworth)* ***Harry's Hazelnut*** *(Ruth Parsons)*

Key Stage 1
Year 2

The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways.

	Materials	Plants	Animals Including Humans	Living Things and their Habitats
Year 2	• Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastics, glass, brick, rock, paper and cardboard for particular uses. • Describe how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	• Observe and describe how seeds and bulbs grow into mature plants. • Describe how plants need water, light and a suitable temperature to grow and stay healthy, and describe the impact of changing these	• Understand that animals, including humans, have offspring which grow into adults. • Describe the basic needs of animals, including humans, for survival (water, food and air). • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	• Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. • Explore and compare the differences between things that are living, dead, and things that have never been alive. • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. • Identify and name a variety of plants and animals in their habitats, including micro-habitats.
Vocab	**Materials -** metal, plastic, wood, paper, glass, clay, rock, fabric, sand, hard, soft, rough, smooth, shiny, dull, bendy, waterproof, strong, weak, group, object, sort, stretchy, magnetic, not magnetic, lets light through, transparent, properties, opaque, **Forces and movement -** force, movement, direction, distance, further, furthest, fast, faster, fastest, slow, slower, slowest, higher, highest, speed up, slow down, change direction, change shape, twist, squeeze, stretch, pull, push, twist	Light, shade, sun, warm, cool, water, grow, healthy, germinate,	**Health and growth**, grow, growth, move, have young, reproduce, feed, diet, variety, germ, healthy, unhealthy, medicines, safety, exercise, taste, sweet, salty, sour, food, adult, young, parent, baby, offspring, germinate	Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed, names of local habitats, eg. pond, woodland, names of micro-habitats e.g. logs, bushes etc. **Variation -** feathers, fur, coat, beak, legs, animals, plants, branch, trunk, colour, group, leaves, moves, grows, feeds, humans, variety, similar, different, similarities, longer, longest, taller, tallest, shorter, shortest, we all…, most…
	Year 2 - Suggested Linked Texts (Reading Across the Curriculum)			
	The Tin Forest *(Helen Ward)* ***Traction Man*** *(Mini Grey)* ***Three Little Pigs*** *(Lesley Sims)*	***Handa's Surprise*** *(Eileen Brown)* ***Once There Were Giants*** *(Martin Waddell and Penny Dale)* ***Tadpole's Promise*** *(Jeanne Willis and Tony Ross)*	***The Gruffalo*** *(Julia Donaldson)* ***Meerkat Mail*** *(Emily Gravett)* ***No Place Like Home*** *(Jonathon Emmett)*	***Jack and the Beanstalk*** *(Richard Walker)* ***Ten Seeds*** *(Ruth Brown)* ***A Seed Is Sleepy*** *(Dianna Aston)*

Key Stage 2
Year 3

The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

	Light	Forces and Magnets	Rocks	Plants	Animals Including Humans
Year 3	• Recognise that they need light in order to see things and that dark is the absence of light. • Notice that light is reflected from surfaces. • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. • Recognise that shadows are formed when the light from a light source is blocked by a solid object. • Find patterns in the way that the size of shadows change.	• Compare how things move on different surfaces. • Notice that some forces need contact between two objects, but magnetic forces can act at a distance. • Observe how magnets attract or repel each other and attract some materials and not others. • Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. • Describe magnets as having two poles. • Predict whether two magnets will attract or repel each other, depending on which poles are facing.	• Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. • Describe in simple terms how fossils are formed when things that have lived are trapped within rock. • Recognise that soils are made from rocks and organic matter.	• Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. • Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. • Invest the way in which water is transported within plants. • Explore the part of the flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	• 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. • Identify that humans and some animals have skeletons and muscles for support, protection and movement.
Vocab	**Light and shadows -** light, dark, shadow, transparent, opaque, direction, light travels, translucent, shortest, longest, highest, object, material, light source, sun, night, day	**Magnets and springs -** magnet, spring, metal, iron, copper, aluminium, steel, brass, attract, repel, magnetic, non-magnetic, attraction, repulsion, force, elastic, pull towards, push away from, stretch, squash, compress	**Rocks and soils -** rock, slate, granite, sandstone, chalk, soil, clay, sand, limestone, quartz, marble, stone, pebble, texture, absorbent, characteristic, surface	**Helping plants grow well -** plants, light, warmth, water, leaves, roots, stem, grow, growth, height	**Moving and growing -** skeleton, bone, bones, ribs, spine, skull, vertebrate, contract, relax, contraction, joint, move, muscles, muscle
	Famous Scientists				
	James Clerk Maxwell (Visible and Invisible Waves of Light)	William Gilbert (Theories on Magnetism) Andre Marie Ampere (Founder of Electro-Magnetism)	Mary Anning (Discovery of Fossils) Inge Lehmann (Earth's Mantle)	Jan Ingenhousz (Photosynthesis) Joseph Banks (Botanist)	Adelle Davis (20th Century Nutritionist) Marie Curie (Radiation/X-Rays)
	Year 3 - Suggested Linked Texts (Reading Across the Curriculum)				
	The Owl Who Was Afraid of the Dark *(Jill Tomlinson)* ***The Dark*** *(Lemony Snicket)* ***The Firework-Maker's Daughter*** *(Philip Pullman)*	***The Iron Man*** *(Ted Hughes)* ***Mrs Armitage: Queen of the Road*** *(Quentin Blake)* ***Mr Archimedes' Bath*** *(Pamela Allen)*	***The Pebble in My Pocket*** *(Meredith Hooper)* ***Stone Girl, Bone Girl*** *(Laurence Anholt)* ***The Street Beneath My Feet*** *(Charlotte Guillain & Yuval Zommer)*	***The Story of Frog Belly Rat Bone*** *(Timothy Basil Ering)* ***The Hidden Forest*** *(Jeannie Baker)* ***George and Flora's Secret Garden*** *(Jo Elworthy)*	***Funnybones*** *(Janet and Allan Ahlberg)* ***I Will Never Not Ever Eat a Tomato*** *(Lauren Child)* ***Goldilocks and the Three Bears*** *(Samantha Berger)*

Key Stage 2
Year 4

The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

	Sound	States of Matter	Living Things and their Habitats	Electricity	Animals Including Humans
Year 4	• Identify how sounds are made, associating some of them with something vibrating. • Recognise that vibrations from sounds travel through a medium to the ear. • Find patterns between the pitch of a sound and features of the object that produced it. • Find patterns between the volume of a sound and the strength of the vibrations that produced it. • Recognise that sounds get fainter as the distance from the sound source increases.	• Compare and group materials together, according to whether they are solids, liquids or gases. • Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius. • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	• Recognise that living things can be grouped in a variety of ways. • Explore and use classification keys to help group, identify, and name a variety of living things in their local and wider environment. • Recognise that environments can change and that this can sometimes pose dangers to living things.	• Identify common appliances that run on electricity • Construct a simple electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. • Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery. • Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. • Recognise some common conductors and insulators, and associate metals with being good conductors.	• Describe the simple functions of the basic parts of the digestive system in humans. • Identify the different types of teeth in humans and their simple functions. • Construct and interpret a variety of food chains, identifying producers, predators and prey.
Vocab	**Changing sounds -** sounds, pitch, loudness, vibrate, vibration, muffle, tuning, quiet, soft, noise, sound, source, loud, high, low, vibrating, soundproof	**Solids, liquids and separating materials -** solid, liquid, melt, freeze, solidify, dissolve, solution, filter, undissolved, dissolved, separate, sieve, mix **Changing state -** evaporate, evaporation, condense, condensation, change of state, state, gas, conditions, solidify, freezing, melting	**Keeping warm -** warm, warmth, cold, temperature, thermometer, degrees, Celsius, conductor, insulator, thermal, thermal conductor, thermal insulator, conduct, insulate, measure, room temperature	**Using electricity -** electricity, bulb, bulb holder, buzzer, battery, battery holder, switch, connection, wire, mains, crocodile clip, break, dim, bright, light, plug, socket, brighter	**Teeth and eating -** feed, feeding, growth, activity, food groups, vegetables, meat, fish, cereals, sugars, fats, fruits, starches, tooth, teeth, incisor, molar, canine, diet, healthy, unhealthy, root, decay, food, balanced diet
	Famous Scientists				
	Aristotle (Sound Waves) Gailileo Galilei (Frequency and Pitch of Sound Waves) Alexander Graham Bell (Invented the Telephone)	Anders Celcius (Celcius Temperature Scale) Daniel Fahrenheit (Fahrenheit Temperature Scale/Invention of the Thermometer)	Cindy Looy (Environmental Change and Extinction) Jaques Cousteau (Marine Biologist)	Thomas Eddison (First Working Lightbulb) Joseph Swan (Incadesecant Light Bulb)	Ivan Pavlov (Digestive System Mechanisms) Joseph Lister (Discovered Antiseptics)
	Year 4 - Suggested Linked Texts (Reading Across the Curriculum)				
	Horrid Henry Rocks *(Francesca Simon)* ***Moonbird*** *(Joyce Dunbar)* ***The Pied Piper of Hamelin*** *(Natalia Vasquez)*	***Charlie and the Chocolate Factory*** *(Roald Dahl)* ***Once Upon a Raindrop: The Story of Water*** *(James Carter)* ***Sticks*** *(Diane Alber)*	***The Vanishing Rainforest*** *(Richard Platt)* ***The Morning I Met a Whale*** *(Michael Morpurgo)* ***Journey to the River Sea*** *(Eva Ibbotson)*	***Until I Met Dudley*** *(Roger McGough)* ***Oscar and the Bird: A Book about Electricity*** *(Geoff Waring)* ***Electrical Wizard: How Nikola Tesla Lit Up the World*** *(Elizabeth Rusch)*	***Human Body Odyssey*** *(Werner Holzwarth)* ***Crocodiles Don't Brush Their Teeth*** *(Colin Fancy)* ***Wolves*** *(Emily Gravett)*

Key Stage 2
Year 5

The principal focus of science teaching in upper key stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. At upper key stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

	Forces and magnets	Earth and Space	Materials	Living Things and their Habitats
Year 5	• 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. • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	• Describe the movement of the Earth, and the 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.	• 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. • Recognise that some materials will dissolve in liquid to form a solution and describe hot 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.	• 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. • Describe the changes as humans develop to old age.
Vocab	Air resistance, water resistance, friction, gravity, Newton, gears, pulleys	**Earth, Sun and Moon -** Earth, Sun, Moon, sphere, revolve, orbit, spin, rotate, axis, sunrise, sunset, north, south, east, west, light source, shadow	**Gases around us -** gas, gases, air, oxygen, carbon dioxide, helium, natural gas, carbon monoxide, evaporate, evaporation, condense, condensation, change of state, liquid, solid, properties, material **More About Dissolving,** dissolve, dissolving, undissolved, solution, mixture, evaporate, condense, pure, separate, clear, cloudy, filter, solid **Reversible and irreversible changes -** reversible, irreversible, change, melting, freezing, evaporating, condensing, filtering, separating, burning, insoluble	**Life cycles -** reproduce, reproduction, stamen, stigma, sepal, petal, ovary, pollen, style, germinate, germination, fertilise, fertilisation, pollinate, pollination, disperse, dispersal, life cycle, babyhood, childhood, adolescence, adulthood
	Famous Scientists			
	Galileo Galilei (Gravity and Acceleration) **Isaac Newton** (Gravitation) **Archimedes of Syracuse**(Levers)	**Claudius Ptolemy and Nicolaus Copernicus** (Heliocentric vs Geocentric Universe) **Neil Armstrong** (First man on the Moon) **Helen Sharman** (First British astronaut) **Tim Peake** (First British ESA astronaut)	**Spencer Silver, Arthur Fry and Alan Amron** (Post-It Notes) **Ruth Benerito** (Wrinkle-Free Cotton)	**David Attenborough** (Naturalist and Nature Documentary Broadcaster) **James Brodie of Brodie** (Reproduction of Plants) **Thomas Young (**Theory of Light) **Ibn al-Haytham** (Light and our Eyes)
	Year 5 - Suggested Linked Texts (Reading Across the Curriculum)			
	The Enormous Turnip *(Katie Daynes)* ***Leonardo's Dream*** *(Hans de Beer)* ***The Aerodynamics of Biscuits*** *(Clare Helen Welsh)*	***The Skies Above My Eyes*** *(Charlotte Guillain & Yuval Zommer)* ***George's Secret Key to the Universe*** *(Lucy and Stephen Hawking with Christophe Galfard)* ***The Way Back Home*** *(Oliver Jeffers)*	***Itch*** *(Simon Mayo)* ***Kensuke's Kingdom*** *(Michael Morpurgo)* ***The BFG*** *(Roald Dahl)*	***Charlotte's Web (****E.B. White)* ***The Land of Neverbelieve*** *(Norman Messenger)* ***Mummy Laid an Egg*** *(Babette Cole)* ***Letters from the Lighthouse*** *(Emma Carroll)* ***The Gruffalo's Child*** *(Julia Donaldson)* ***The King Who Banned the Dark*** *(Emily Haworth-Booth)*

Key Stage 2
Year 6

The principal focus of science teaching in upper key stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. At upper key stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

	Living Things and their Habitats	Evolution and Inheritance	Animals Including Humans	Light	Electricity
Year 6	• 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.	• 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.	• 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.	• 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 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.	• 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 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.
Vocab	**Micro-organisms -** micro-organism, microbe, germ, virus, decay, mould, feed, grow, reproduce, bacteria	**Interdependence and Adaptation -** plant growth, fertiliser, nutrients, consumer, producer, predator, prey, food chain, key, suited, plant food, produces, identify, habitats, life processes	**Keeping Healthy -** diet, balanced diet, side effect, fats, sugars, starches, food types, heart, circulation, heart beat, pulse, pulse rate, muscle, blood, blood vessel, lung, breathe, growth, activity	**How We See Things -** light, beam, reflect, reflection, opaque, mirror, light travelling, source, reflected, travel, block, shiny surface	**Changing Circuits** - circuit, complete circuit, conductor, insulator, symbol, circuit diagram, electricity, component, voltage
	Famous Scientists				
	Carl Linnaeus (Identifying, Naming and Classifying Organisms)	**Charles Darwin and Alfred Russel Wallace** (Theory of Evolution by Natural Selection) **Jane Goodall** (Chimpanzees)	**Justus von Liebig** (Theories of Nutrition and Metabolism) **Sir Richard Doll** (Linking Smoking and Health Problems) **Leonardo Da Vinci** (Anatomy)		
	Year 6 - Suggested Linked Texts (Reading Across the Curriculum)				
	Beetle Boy *(M G Leonard)* ***Insect Soup*** *(Barry Louis Polisar)* ***Fur and Feathers*** *(Janet Halfmann)*	***One Smart Fish*** *(Christopher Wormell)* ***The Molliebird*** *(Jules Pottle)* ***Our Family Tree*** *(Lisa Westberg Peters)* ***Moth*** *(Isabel Thomas)*	***Pig-Heart Boy*** *(Malorie Blackman)* ***Skellig*** *(David Almond)* ***A Heart Pumping Adventure*** *(Heather Manley)* ***Hair in Funny Places*** *(Babette Cole)* ***Giant*** *(Kate Scott)* ***You're Only Old Once!*** *(Dr. Seuss)*		