








Year 1: 2022 - 2023

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Project Title	Memory Box: How can you capture your memories?	Bright Lights, Big City: Where should everywhere Bear visit when he travels to London? Why?	Dinosaurs: How do we know dinosaurs existed?	Moon Zoom: How could you send Beegu back to the moon?	Splendid Skies: How does the weather change?	Rio de Vida: What is Brazil like compared to the UK?
Science	Animals, including Humans Big Question: Are all animals the same? Plant Crocus in pots outside Y1	Mini Topic (3 weeks): Seasonal Changes Big Question: What changes take place between winter and autumn? Everyday Materials Big Question: How can materials help us in our everyday life?	Everyday Materials Big Question: How can materials help us in our everyday life? During Science Week grow carrots in pots outside Y1	Plants Big Question: Is a tree a plant?	Plants and Seasonal Changes: Do living things change or stay the same?	Animals, including Humans Big Question: Are animals the same in Brazil?
Key Scientist	David Attenborough Study of animals  Joan Proctor Zoologist and curator of reptiles 	Christopher Wren Inventor of rain gage 	Henry Bessemer  Steel	Beatrix Potter 	Jane Strachen Climate scientist 	Bertha Maria Júlia Lutz Brazilian Zoologist 
Key Vocabulary	head, body, eyes, ears, mouth, teeth, leg, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, touch, see, smell, taste, hear, fingers, skin, eyes, nose, ear and tongue	weather (sunny, rainy, windy, snowy etc.) Seasons (winter, summer, spring and autumn) Sun, sunrise, sunset, day length object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy,	object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent breaks/tears, rough, smooth, shiny, dull, see-through, not see-through	leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud. Plus local trees and plants.	weather (sunny, rainy, windy, snowy etc.) Seasons (winter, summer, spring and autumn) Sun, sunrise, sunset, day length	head, body, eyes, ears, mouth, teeth, leg, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, touch, see, smell, taste, hear, fingers, skin, eyes, nose, ear and tongue








		waterproof, absorbent breaks/tears, rough, smooth, shiny, dull, see-through, not see-through				
National Curriculum	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -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) -identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - observe changes across the four seasons - observe and describe weather associated with the seasons and how day length varies. <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - observe changes across the four seasons - observe and describe weather associated with the seasons and how day length varies. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -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)
<p>Working Scientifically taught throughout:</p> <p>To ask simple questions and recognising that they can be answered in different ways:</p> <ul style="list-style-type: none"> - observing closely, using simple equipment - performing simple tests - identifying and classifying - using their observations and ideas to suggest answers to questions - gathering and recording data to help in answering questions. 						

Year 2: 2022 - 2023

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Project Title	Street Detective: What is the geography of where I live?	London Frost Fair: How did people enjoy themselves at London Frost Fairs?	Fire, Fire! (Great Fire of London): How do we know so much about what happened in the Great Fire of London?	Muck, Mess and Mixtures: Can you create a marvellous mixture that is better than George's?	The Scented Garden: Can Trent's garden be beautiful and useful?	Land Ahoy: Why do we love being beside the sea so much?
Science	Animals, including Humans Big Question: What do living things need to survive? Grow and plant daffodils and tulips in planter outside Y1 and Y2.	Living Things and their Habitats Big Question: What is alive, dead or was never alive?	Uses of Everyday Materials Big Question: Why do we choose different materials		Plants Big Question: Do plants need the same things as humans to survive Grow runner beans some inside and some outside.	Living Things and their Habitats Big Question: Are fish the only animals which live in water?
Key Scientist	Elizabeth Garrett Anderson 	Prem Singh Gill (Polar Scientist studies Antarctic seals) 	Charles Macintosh 	Julie and Scott Brusar – Solar Roads 	Sir Joseph Banks (Kew Gardens)  Marie Clark Taylor Botanist	Eugenie Clark (Shark Lady)  Marine conservation
Key Vocabulary	offspring, reproduction, growth, child, young/old stages (for example chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (meat, fish, vegetables, bread, rice, pasta)	Living, dead, never been alive, suited, suitable, basic needs, food, food chain, habitat, pond, woodland, micro-habitat, logs, bushes	Names of materials: wood, metal, plastic, glass, brick, rock, paper, cardboard Properties of materials: Year 1 PLUS opaque, transparent, translucent, reflective, non-reflective, flexible, rigid Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching		Year 1 PLUS Light, shade, sun, warm, cool, water, grow, healthy	Living, dead, never been alive, suited, suitable, basic needs, food, food chain, habitat, pond, woodland, micro-habitat, logs, bushes
National Curriculum	Pupils should be taught to: - notice that animals, including humans, have offspring which grow into adults	. Pupils should be taught to: - explore and compare the differences between	Pupils should be taught to: - identify and compare the suitability of a variety of everyday materials, including		Pupils should be taught to:	-Pupils should be taught to: - explore and compare the differences between

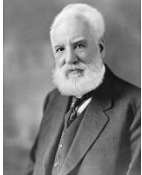


	<p>- find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>- describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>	<p>things that are living, dead, and things that have never been alive</p> <p>- 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</p> <p>- identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>- 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</p>	<p>wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>- find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p>- observe and describe how seeds and bulbs grow into mature plants</p> <p>- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p>	<p>things that are living, dead, and things that have never been alive</p> <p>- 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</p> <p>- identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>- 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</p>
<p>Working Scientifically taught throughout:</p> <p>To ask simple questions and recognising that they can be answered in different ways:</p> <ul style="list-style-type: none"> - observing closely, using simple equipment - performing simple tests - identifying and classifying - using their observations and ideas to suggest answers to questions - gathering and recording data to help in answering questions. 					

Year 3: 2022 – 2023

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Project	Stone: How do we know what happened in the Stone Age?	Bronze and Iron: How did they change lives?	Tremors: Why do some earthquakes cause more damage than others?	Gods and Mortals: What was the ancient Greek's greatest achievement?	Predator: Which animal is the ultimate predator and why?	Urban Pioneers: Is graffiti art of vandalism? Why?
Science	Light Big Question: What is the dark? Plant Potatoes outside in brown boxes.	Rocks Big Question: Are all rocks the same?	Plants Big Question: Do living things need different things to survive? (If daffodils have started popping up from Year 2 take some for dissection lesson) Plant spring onions in pots during science week	Animals, including humans Big Question: How do living things work?	Magnets and Forces Big Question: What can magnets do?	
Key Scientist	Lewis Latimer – helped invent lightbulb  Ibn al-Haytham  How we see	Inge Lehmann Earth  Mary Anning 	George Washington Carver 	Bittu Sahga (conservation of tigers) 	William Gilbert 	
	light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt,	rock, stone, pebble, boulder, grain,	photosynthesis, pollen, insect/wind pollination,	nutrition, nutrients, carbohydrates, sugars,	force, push, pull, twist, contact force, non-contact force, magnetic force,	



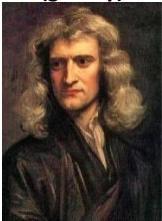



	surface, shadow, reflect, mirror, sunlight, dangerous.	crystal, layers, hard, soft, texture, absorb water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalky/clay soil	seed formation, seed dispersal (wind dispersal, animal dispersal, water dispersal)	protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, joints, support, protect, move, skull, ribs, spine	magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole.
National Curriculum	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 an opaque object - find patterns in the way that the size of shadows change. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 - investigate the way in which water is transported within plants - explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 other animals have skeletons and muscles for support, protection and movement. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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.
<p>Working Scientifically is taught throughout the year: Pupils will be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> - asking relevant questions and using different types of scientific enquiries to answer them - setting up simple practical enquiries, comparative and fair tests - making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers - gathering, recording, classifying and presenting data in a variety of ways to help in answering questions - recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables - reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions - using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions - identifying differences, similarities or changes related to simple scientific ideas and processes - using straightforward scientific evidence to answer questions or to support their findings. 					

Year 4: 2022 - 2023

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Project title	Ruthless Romans: How did the arrival of the Romans change Britain?	Road Trip USA: What could I see out of my window?	Anglo-Saxons: Who were the Anglo-Saxons and how do we know what was important to them?	Raging River: What is river?	Seen and not heard (Victorians and Queen Victoria): Who held the power in Victorian society?	Bottoms, burps and bile: What do our bodies do with the food we eat?
Science	Sound Big Question How do we hear different sounds?		Living Things and their habitats Big Question: What is the same and what is different?	States of Matter Big Question: Is water always wet? During Science Week Plant Onions in class then transfer outside into pots.	Electricity Big Question: Can we control electricity?	Animals, including humans Big Question: What do animals do with the food that they eat?
Key Scientist	Alexander Graham Bell 	Miller Reese Hutchinson Hearing aid 	Rachel Carson (disruption to food chains)  Carl Linneaus (Classification) 	Agnes Pockels (Liquids and solids)  Antoine Lavoisier – developed the modern system of naming	Garett Morgan  AND Benjamin Franklin 	Dr. Jessie G. Garnett First Black Dentist 
Key Vocabulary	sound, source, vibrate, vibration, travel, pitch (high, low) volume, faint, loud, insulation		classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate	solid, liquid, gas, state change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle.	electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative,	digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor,



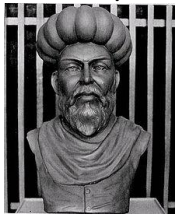

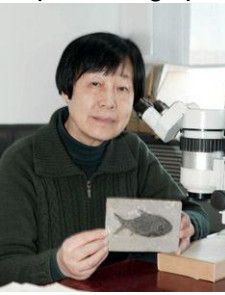



				connect/connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol.	canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain.
National Curriculum	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 (°C) - identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - identify common appliances that run on electricity - construct a simple series 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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.
<p>Working Scientifically is taught throughout the year: Pupils will be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> - asking relevant questions and using different types of scientific enquiries to answer them - setting up simple practical enquiries, comparative and fair tests - making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers - gathering, recording, classifying and presenting data in a variety of ways to help in answering questions - recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables - reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions - using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions - identifying differences, similarities or changes related to simple scientific ideas and processes - using straightforward scientific evidence to answer questions or to support their findings. 					

Year 5: 2022 - 2023

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Project Title	Vikings and Anglo-Saxons: Raiders or settlers: How should we remember the Vikings?	Pharaoh: How can we know so much about the ancient Egyptians as they lived so long ago?	Scream Machine: What is needed to make a spine-tingling ride?	Stargazer: Could humans live on another planet? During Science Week plant Cucumbers start in greenhouse and then transfer out into pots.	Misty Mountain: Mountains: Natural wonders or danger zones?	Allotment: Can you grow a sandwich? Use cucumbers if ready to make sandwiches.
Science	Properties and changes of materials Big Question: What are things made from and why? Are all changes reversible?		Forces Big Question: How do things move?	Earth and Space Big Question: Sun, Earth, Moon – What is moving? Plant cucumbers	Living Things and their habitats: Lifecycles Big Question: do all lifecycles look the same?	Living things and their habitats: plants Big Question: Do all plants grow from a seed?
Key Scientist	Stephanie Kwolek Kevlar 	Walter Lincoln Hawkins Engineering and uses of plastics 	Sir Isaac Newton (gravity) 	Mae Jemison 	Maria Sibylla Merian  Metamorphosis	Tom Hart Dyke  (Orchids)
Key Vocabulary	Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve, reversible/non-reversible change, burning, rusting, new material.		force, gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears.	Earth, Sun, Moon, Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune, spherical, solar system, rotates, star, orbit, planets	life cycle, reproduce, sexual, fertilises, sperm, egg, live young, metamorphosis, puberty	life cycle, reproduce, sexual, asexual, plantlets, runners, bulbs, cuttings
National Curriculum	Pupils should be taught to: - 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		Pupils should be taught to: - explain that unsupported objects fall towards the Earth because of the force of gravity acting between	Pupils should be taught to: - describe the movement of the Earth, and other planets, relative to the Sun in the	Pupils should be taught to: - describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	Pupils should be taught to: - describe the life process of reproduction in some plants.

	<ul style="list-style-type: none"> - 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. 	<p>the Earth and the falling object</p> <ul style="list-style-type: none"> - 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. 	<p>solar system</p> <ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - describe the life process of reproduction in some animals. <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - describe the changes as humans develop to old age. 	
<p>Working Scientifically covered throughout the year:</p> <p>Pupils will be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <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 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. 					

Year 6: 2022 - 2023

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Project Title	Battle of Barnet: What happened in Barnet in 1471? Britain at War: What was life like during World War 2?	Britain at War: Why was winning the Battle of Britain in 1940 so important?	Frozen Kingdoms: Antarctica: everlasting winter wonderland or treacherous terrain?	Hola Mexico: Why did the ancient Maya change their way of life? During Science Week plant Sweet William, California Poppy and Cosmos into pots.	Breathing Spaces: Who are Britain's National Parks for?	Gallery Rebels: What makes art rebellious?
Science	Electricity Big Question: Can we vary the effects of electricity?	Animals, including Humans Big Question: How do our choices affect how our bodies work?	Evolution and Inheritance Big Question: How do living things change over time and place?	Living Things and their habitat Big Question: What else is there beyond plants and animals?	Light Big Question: How do we see?	
Key Scientist	Michael Faraday  AND William Kamkwamba 	Ibn al-Nafis (description of pulmonary circulation of blood) 	Charles Darwin (adaptation)  Meeman Chang (Paleontologist) 	Dame Sarah Gilbert Covid Vaccine – study of viruses  Libbie Hyman Invertebrate classification 	Dr Patricia Bath Laser cataract surgery 	
Key Vocabulary	circuit, complete circuit, circuit diagram, circuit symbol, cell, battery,	Heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle,	Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment,	vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails,	Year 3 PLUS straight lines, light rays	

	bulb, buzzer, motor, switch, voltage	circulatory system, diet, exercise, drugs, lifestyle	inherited, species, fossils	worms, flowering, non-flowering	
National Curriculum	<p>Pupils should be taught to:</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 bulbs, the loudness of buzzers and the on/off position of switches - use recognised symbols when representing a simple circuit in a diagram. 	<p>Pupils should be taught to:</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>Pupils should be taught to:</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. 	<p>Pupils should be taught to:</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 microorganisms, plants and animals - give reasons for classifying plants and animals based on specific characteristics 	<p>Pupils should be taught to:</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>Working Scientifically covered throughout the year:</p> <p>Pupils will be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <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 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. 					