

R	1	2	3	4	5
	Key Driver: History The Adventures of Bear and the Queen	Key Driver: History Great Fire of London	Key Driver: History Ancient Greeks	Key Driver: Geography Europe	Key Driver: Geography Our planet
	Key Driver: Geography The Adventures of Bear (United Kingdom)	Key Driver: History Our Heroes (NHS)	Key Driver: Geography Journey or Endurance	Key Driver: History Romans	Key Driver: Geography Natural disasters
	Key Driver: Geography Under the Sea	Key Driver: History Mary Anning Meets the Dinosaurs	Key Driver: History Ancient Egyptians	Key Driver: History Anglo Saxons	Key Driver: History Victorian Childhood
	Key Driver: Geography Sustainability	Key Driver: Geography Garden Diversity	Key Driver: Geography The River Nile	Key Driver: Geography Rainforests	Key Driver: History Industrial Revolution
	Key Driver: History Highway Rat	Key Driver: Geography Explorers	Key Driver: History Stone Age	Key Driver: History Vikings	Key Driver: History Elizabethans
	Key Driver: History and Geography My world, Their world.	Key Driver: Geography Where we live.	Key Driver: Geography Counties	Key Driver: Geography Canals	Key Driver: Geography Rivers

R	1	2	3	4	5
	Who am I?	Our Local Environment	Food in our bodies	Living Things	Material World
	Celebrations	Material Monsters	How does your garden grow	States	Amazing Changes
	Polar Places	Healthy Me	Forces and Magnets	The Big Build	Out of this world
	Plants and Animals	Little Masterchefs	Light and Shadows	Teeth and Eating	Lets get moving
	On Safari	Young Gardeners	Rocks and Fossils	What's that sound	Growing up and growing old
	Holiday	Squash, Bend, Twist and Stretch	The Nappy Challenge	Power it up	Circle of life

Substantive Knowledge		<p>males including fish, amphibians, reptiles, birds and mammals.</p> <ul style="list-style-type: none"> Identify and name a variety of common animals that are carnivores, herbivores and omnivores. 	<p>light and a suitable temperature to grow and stay healthy.</p>	<p>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.</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>	<p>tions.</p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey.</p>		
Disciplinary Knowledge		<ul style="list-style-type: none"> Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). Ask simple questions and recognise that they can be answered in different ways. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Gather and record data to help in answering questions. 	<p>Ask simple questions and recognise that they can be answered in different ways.</p> <p>Observe closely, using simple equipment. Perform simple tests.</p> <p>Identify and classify.</p> <p>Use observations and ideas to suggest answers to questions.</p> <p>Gather and record data to help in answering questions.</p>	<p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p> <p>Ask relevant questions and use different types of scientific enquiries to answer them</p>	<p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</p> <p>Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p>		
		<p>Leaves, trunk, branch, root, seed, bulb, flower, stem, wild, garden, deciduous evergreen</p>	<p>annual / compost / flower /fruit / germinate / germination / fruit / health / healthy /</p>	<p>Carpel/ flower/ germinate/ leaves/ life cycle/ nutrients/ ovary/ ovule/ petal/ photosynthesis/</p>	<p>Anus, canine, canines, carnivores, decay, digestion, enamel, energy, herbivore, incisor, incisors, large intestine, molar, molars, mouth</p>		

Substantive Knowledge			<p>everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p>Find out about and describe the basic needs of humans for survival (water, food and air).</p> <p>Describe the importance for humans of eating the right amounts of different types of food, and hygiene.</p> <p>Observe and describe how seeds and bulbs grow into mature plants.</p> <p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p>	<p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p>			<p>diet, exercise, drugs and lifestyle on the way their bodies function.</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans.</p>
Disciplinary Knowledge		<p>Observe closely, using simple equipment. Identify and classify. Gather and record data to help in answering questions.</p>	<p>Observe closely.</p> <p>Perform simple tests.</p> <p>To Identify and classify. Use observations and ideas to suggest answers to questions.</p> <p>Gather and record data in answering questions</p>	<p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar graphs and tables.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p>		<p>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. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p>	<p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p> <p>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.</p> <p>Identifying scientific evidence that has been used to support or refute ideas or arguments.</p>
		<p>Backbone Ear lobe Elbow Eye socket Hip Joints Ribs Thigh Tonque</p>	<p>Calm,/ calves / cough / exercise / feed / fitness / food / fruit / germs / happiness / health / healthy / hygiene / hygienic / muscle / needs / sneeze / stomach / thighs/ vegetables/ exercise/ healthv/ hvaiene/ aerm/</p>	<p>Balanced diet/ biceps/ carbohydrates/ contract/ relax/ exoskeleton/ fats/ femur/ humerus/ joint/ muscle/ nutrients/ protein/ skeleton/ triceps/ vertebrae</p>		<p>Adolescence, arthritis, life expectancy, teenager, adolescent, gestation period, puberty</p>	<p>Addiction Aorta Artery Blood Atrium Capillaries Carbon dioxide Circulatory system Exercise</p>

Substantive		<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 micro-habitats</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>name a variety of living things in their local and wider environment.</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p>	animals	<p>ences, including micro-organisms, plants and animals</p> <p>Give reasons for classifying plants and animals based on specific characteristics.</p>
Disciplinary Knowledge		<p>Ask simple questions and recognise that they can be answered in different ways.</p> <p>Observe closely, using simple equipment. Perform simple tests.</p> <p>Identify and classify.</p> <p>Use observations and ideas to suggest answers to questions.</p> <p>Gather and record data to help in answering questions.</p>		<p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Use straightforward</p>	<p>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. Use test results to make predictions to set up further comparative and fair tests. 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.</p>	<p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>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.</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p>

Substantive Know							<p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>
Disciplinary Knowledge							<p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p>
Vocabulary							<p>Variety, prehistoric, natural selection, inherited, fossil, evolution, dinosaur, adaptation</p>

Substantive Knowledge		<p>are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common animals. Describe the simple properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple properties</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>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>			<p>(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</p>	
Disciplinary Knowledge		<p>Ask simple questions and recognise that they can be answered in different ways. Perform simple tests. Identify and classify. Use their observations and ideas to suggest answers to questions.</p>	<p>Observe closely.</p> <p>Perform simple tests.</p> <p>Identify and classify.</p> <p>Use observations and ideas to suggest answers to questions.</p> <p>Gather and record data to help in answering questions.</p>			<p>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. Use test results to make predictions to set up further comparative and fair tests. Report 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. Identify scientific evidence that has been used to support or refute ideas or arguments.</p>	
Vocabulary		<p>Adventurer Antarctic Arctic carnivore clothes cold explorer freeze flexible frozen habitat herbivore ice icebergs North Pole omnivore penguin polar bear sea lion seal snow South Pole warm waterproof weather whale</p>	<p>absorbent / bend / brittle / bumpy / card / change / concrete / dull / elastic / fabric / flexible / glass / hard / man-made materials / metal / natural materials / opaque / paper / plastic / recycle / rough / rubber / shiny / smooth bend / dough / elastic / pull / push / squash / squeeze / stretch/ twist</p>			<p>Dissolve, electrical conductor, filter, hard, elastic, evaporate, flexible, insoluble, mixture, plastic, resistant, rigid, soluble, solution, solvent, thermal conductor</p>	

Substantive Know				<p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>Recognise that soils are made from rocks and organic matter</p>			
Disciplinary Knowledge				<p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p>			
Vocabulary				<p>Mineral/ rock/ permeable/ impermeable/ crystals/ magma/ sediment/ sedimentary/ humus/ fossil/ extinct/ granite/ igneous/ metamorphic/ soil/ palaeontology/ paleontologists</p>			

Substantiv					<p>and measure or research the temperature at which this happens in degrees Celsius ($^{\circ}\text{C}$).</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p>... 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>	
Disciplinary Knowledge					<p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p>	<p>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. Use test results to make predictions to set up further comparative and fair tests. 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.</p>	
vocabulary					<p>Boiling, boiling point, condensing, evaporation, freezing, freezing point, gas, liquid, matter, material, melting, melting point, solid, temperature, thermometer, water cycle.</p>	<p>Acid, irreversible, reaction, rust, burning, material, reversible.</p>	

Substantive Know						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.	
Disciplinary Knowledge						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. Use test results to make predictions to set up further comparative and fair tests. 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.	
Vocabulary						Air resistance, friction, newton, reliable, force meter, gravity, magnetism, resistance, weight	

Substantive Know							
Disciplinary Knowledge		<p>Pupils should observe and talk about changes in the weather and the seasons. Pupils might work scientifically by: making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.</p>					
Vocabulary		<p>Seasons Winter Summer Spring Autumn</p>					

Substantive Know					<p>cells, wires, bulbs, switches and buzzers.</p> <p>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.</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>Recognise some common conductors and insulators and associate metals with being good conductors.</p>	<p>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.</p> <p>Use recognised symbols when representing a simple circuit in a diagram</p>
Disciplinary Knowledge				<p>Ask relevant questions and using different types of scientific enquiries to answer them – setting up simple practical enquiries, comparative and fair tests.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</p>		<p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p> <p>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.</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p>
					<p>Battery, bulb, cell, circuit, components, conductor, insulator, mains, rechargeable, switch, terminals, wires.</p>	<p>Battery, blow, cell, complete, component, electrons, filament, fuse</p>

Disciplinary Knowledge				<p>Recognise that light from the Sun can be dangerous and that there are ways to protect the eyes.</p> <p>Recognise that shadows are formed when the light from a light source is blocked by a solid object.</p> <p>Find patterns in the way that the sizes of shadows change.</p>		<p>are seen because they give out or reflect light into the eye.</p> <p>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.</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>
Substantive Knowledge				<p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p>		<p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p> <p>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 .</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Gather and record data to help in answering questions.</p>
Vocabulary				<p>Description/ dull/ explanation/ light source/ mirror/ observation/ opaque/ reflect/ shadow/ shiny/ translucent/ transparent</p>		<p>Cornea, iris, lens, light ray, pupil, rainbow, reflection, symmetry</p>

Substantive Know						<p>ment 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. Know that the Sun is a star at the centre of our solar system and that it has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Find out about the way that ideas about the solar system have developed, understanding how the geocentric model of the solar system gave way to the heliocentric model.</p>	
Disciplinary Knowledge						<p>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. Use test results to make predictions to set up further comparative and fair tests. 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.</p>	
lary						<p>Daytime, geocentric, heliocentric, night-time, orbit, planet, solar system, star, Sun, time zone</p>	

Substantive Know					<p>ear</p> <p>Find patterns between the pitch of a sound and features of the object that produced it.</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it.</p> <p>Recognise that sounds get fainter as the distance from the sound source increases</p>		
Disciplinary Knowledge					<p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p>Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Use straightforward scientific evidence to answer questions or to support findings.</p>		
					Pitch, sound source, vibration, volume		