

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
EVFS	???	???	???	???	???	???
	???	???	???	???	???	???

Working scientifically
Statutory requirements
 During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:
 * asking simple questions and recognising that they can be answered in different ways
 * 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.
Notes and guidance (non-statutory)
 Pupils in years 1 and 2 should explore the world around them and raise their own questions. They should experience different types of scientific enquiries, including practical activities, and begin to recognise ways in which they might answer scientific questions. They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group them, observe changes over time, and, with guidance, they should begin to notice patterns and relationships. They should ask people questions and use simple secondary sources to find answers. They should use simple measurements and equipment (for example, hand lenses, egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language. These opportunities for working scientifically should be provided across years 1 and 2 so that the expectations in the programme of study can be met by the end of year 2. Pupils are not expected to cover each aspect for every area of study.

Geography skills and fieldwork
 * use world maps, atlases and globes to identify the United Kingdom and its counties, as well as the countries, continents and oceans studied at the key stage
 * use simple compass directions (North, South, East and West) and locational and directional language (for example, near and far; left and right), to describe the location of features and routes on a map.
 * use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features; devise a simple map; and use and construct basic symbols in a key
 * use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment.

History
 Pupils should develop an awareness do the past, using common words and phrases relating to the passing of time. They should know where the people and events they study fit within a chronological framework and identify similarities and differences between ways of life in different periods. They should use a wide vocabulary of everyday historical terms. They should ask and answer questions, choosing and using parts of stories and other sources to show that they know and understand key features of events. They should understand some of the ways in which we find out about the past and identify different ways in which it is represented.

Physical Education
 Pupils should develop fundamental movement skills, become increasingly competent and confident and access a broad range of opportunities to extend their ability, balance and coordination, individually and with others. They should be able to engage in competitive (both against self and against others) and co-operative physical activities, in a range of increasingly challenging situations.
 Pupils should be taught to:
 * master basic movements including running, jumping, throwing and catching, as well as developing balance, agility and co-ordination, and begin to apply these in a range of activities
 * participate in team games, developing simple tactics for attacking and defending
 * perform dances using simple movement patterns.

Computing
 Pupils should be taught to:
 * understand what algorithms are; how they are implemented as programs on digital devices; and what programs execute by following precise and unambiguous instructions
 * create and debug simple programs
 * use logical reasoning to predict the behaviour of simple programs
 * use technology purposefully to create, organise, store, manipulate and retrieve digital content
 * recognise common use of information technology beyond school
 * use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Music
 Pupils should be taught to:
 * use their voices expressively and creatively by singing songs and speaking chants and rhymes
 * play tuned and untuned instruments musically
 * listen with concentration and understanding to a range of high-quality live and recorded music
 * experiment with, create, select and combine sounds using the inter-related dimensions of music.

Art and Design
 Pupils should be taught to:
 * use a range of materials creatively to design and make products
 * to use drawing, painting and sculpture to develop and share their ideas, experiences and imagination
 to develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space
 * about the work of a range of artists, craft makers and designers, describe the differences and similarities between different practices and disciplines, and making links to their own work.

Design and technology
 Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment).
 When designing and making, pupils should be taught to:
Design
 * design purposeful, functional, appealing products for themselves and other users based on design criteria
 * generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
Make
 * select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing)
 * select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.
Evaluate
 * explore and evaluate a range of existing products
 * evaluate their ideas and products against design criteria
Technical knowledge
 * build structures, exploring how they can be made stronger, stiffer and more stable
 * explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products.
Cooking and nutrition
 As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and later in life.
 Pupils should be taught to:
 * use the basic principles of a healthy and varied diet to prepare dishes
 * understand where food comes from.

KS1

Year 1 & 2

Living Things and Habitats (Y2)	Animals inc. Humans (Y1)	Animals inc. Humans (Y2)	Great Scientists & Explorers (scientific skills)
<p>Statutory requirements Pupils should be taught to: * 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 microhabitats * 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>Notes and guidance (non-statutory) Pupils should be introduced to the idea that all living things have certain characteristics that are essential for keeping them alive and healthy. They should raise and answer questions that help them to become familiar with the life processes that are common to all living things. Pupils should be introduced to the terms 'habitat' (a natural environment or home of a variety of plants and animals) and 'micro-habitat' (a very small habitat, for example for woodlice under stones, logs or leaf litter). They should raise and answer questions about the local environment that help them to identify and study a variety of plants and animals within their habitat and observe how living things depend on each other, for example, plants serving as a source of food and shelter for animals. Pupils should compare animals in familiar habitats with animals found in less familiar habitats, for example, on the seashore, in woodland, in the ocean, in the rainforest. Pupils might work scientifically by: sorting and classifying things according to whether they are living, dead or were never alive, and recording their findings using charts. They should describe how they decided where to place things, exploring questions for example: 'Is a flame alive? Is a deciduous tree dead in winter?' and talk about ways of answering their questions. They could construct a simple food chain that includes humans (e.g. grass, cow, human). They could describe the conditions in different habitats and micro-habitats (under log, on stony path, under bushes) and find out how the conditions affect the number and type(s) of plants and animals that live there.</p>	<p>Statutory requirements Pupils should be taught to: * 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> <p>Notes and guidance (non-statutory) Pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat. They should understand how to take care of animals taken from their local environment and the need to return them safely after study. Pupils should become familiar with the common names of some fish, amphibians, reptiles, birds and mammals, including those that are kept as pets. Pupils should have plenty of opportunities to learn the names of the main body parts (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth) through games, actions, songs and rhymes. Pupils might work scientifically by: using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells.</p>	<p>Statutory requirements Pupils should be taught to: * notice that animals, including humans, have offspring which grow into adults * find out about and 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.</p> <p>Notes and guidance (non-statutory) Pupils should be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. They should also be introduced to the processes of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs.</p> <p>Notes and guidance (non-statutory) The following examples might be used: egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep. Growing into adults can include reference to baby, toddler, child, teenager, adult. Pupils might work scientifically by: observing, through video or first-hand observation and measurement, how different animals, including humans, grow; asking questions about what things animals need for survival and what humans need to stay healthy; and suggesting ways to find answers to their questions.</p>	
Mary Anning	Where R we in the world?	Sensational Safari - Kenya	Great Expectations & Transport
<p>The lives of significant individuals in the past who have contributed to national and international achievements. Some should be used to compare aspects of life in different periods (for example, Elizabeth I and Queen Victoria, Christopher Columbus and Neil Armstrong, William Caxton and Tim Berners-Lee, Pieter Bruegel the Elder and LS Lowry, Rosa Parks and Emily Davidson, Mary Seacole and/or Florence Nightingale and Edith Cavell)</p>	<p>Locational Knowledge * name and locate the world's seven continents and five oceans * name, locate and identify characteristics of four countries and capital cities of the United Kingdom and its surrounding seas.</p>	<p>Place Knowledge * understand geographical similarities and differences through studying the human and physical of a small area of the United Kingdom, and of a small area in a contrasting non-European country.</p>	<p>* significant historical events, people and places in their own locality. * use basic geographical vocabulary to refer to: * key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean river, soil, valley, vegetation, season and weather * key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop</p>

KS2	<p>Geography</p> <ul style="list-style-type: none"> * use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied * use the eight points of a compass, found and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world * use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies. 				
	<p>History</p> <p>Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study. They should note connections, contrasts and trends over time and develop the appropriate use of historical terms. They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance. They should construct informed responses that involve thoughtful selection and organisation of relevant historical information. They should understand how our knowledge of the past is constructed from a range of sources.</p>				
	<p>Physical Education</p> <p>Pupils should continue to apply and develop a broader range of skills, learning how to use them in different ways and to link them to make actions and sequences of movement. They should enjoy communicating, collaborating and competing with each other. They should develop an understanding of how to improve in different physical activities and sports and learn how to evaluate and recognise their own success.</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> * use running, jumping, throwing and catching in isolation and in combination * play competitive games, modified where appropriate (for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis), and apply basic principles suitable for attacking and defending * develop flexibility, strength, technique, control and balance (for example, through athletics and gymnastics) * perform dances using a range of movement patterns * take part in outdoor and adventurous activity challenges both individually and within a team * compare their performances with previous ones and demonstrate improvement to achieve their personal best. 				
	<p>Computing</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> * design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts * use sequence, selection, and repetition in programs; work with variables and various forms of input and output * use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs * understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration * use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content * select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information * use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 				
	<p>Music</p> <p>Pupils should be taught to sing and play musically with increasing confidence and control. They should develop an understanding of musical composition, organising and manipulating ideas within musical structures and reproducing sounds from aural memory.</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> * play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression. * improvise and compose music for a range of purposes using the inter-related dimensions of music * listen with attention to detail and recall sounds with increasing aural memory * use and understand staff and other musical notations * appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians * develop an understanding of the history of music. 				
	<p>Art</p> <p>Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design.</p> <p>Pupils should be taught to create sketch books to record their observations and use them to review and revisit ideas</p> <ul style="list-style-type: none"> * to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (for example, pencil, charcoal, paint, clay) * about great artists, architects and designers in history. 				
	<p>Design and technology</p> <p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home, school, leisure, culture, enterprise, industry and the wider environment).</p> <p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> * use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups * generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make</p> <ul style="list-style-type: none"> * select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately * select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities <p>Evaluate</p> <ul style="list-style-type: none"> * investigate and analyse a range of existing products * evaluate their ideas and products against their own design criteria and consider the views of others to improve their work * understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge</p> <ul style="list-style-type: none"> * apply their understanding of how to strengthen, stiffen and reinforce more complex structures * understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages) * understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) * apply their understanding of computing to program, monitor and control their products <p>Cooking and nutrition</p> <p>As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and later in life.</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> * understand and apply the principles of a healthy varied diet * prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques * understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. 				
	<p>Languages</p> <p>Teaching may be of any modern or ancient foreign language and should focus on enabling pupils to make substantial progress in one language. The teaching should provide an appropriate balance of spoken and written language and should lay the foundations for further foreign language teaching at key stage 3. It should enable pupils to understand and communicate ideas, facts and feelings in speech and writing, focused on familiar and routine matters, using their knowledge of phonology, grammatical structures and vocabulary.</p> <p>The focus of study in modern languages will be on practical communication. If an ancient language is chosen the focus will be to provide a linguistic foundation for reading comprehension and an appreciation of classical civilisation. Pupils studying ancient languages may take part in simple oral exchanges, while discussion of what they read will be conducted in English. A linguistic foundation in ancient languages may support the study of modern languages at key stage 3.</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> * listen attentively to spoken language and show understanding by joining in and responding * explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words * engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help* * speak in sentences, using familiar vocabulary, phrases and basic language structures * develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases* * present ideas and information orally to a range of audiences* * read carefully and show understanding of words, phrases and simple writing * appreciate stories, songs, poems and rhymes in the language * broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary * write phrases from memory, and adapt these to create new sentences, to express ideas clearly * describe people, places, things and actions orally* and in writing * understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English. <p><i>The starred (*) content above will not be applicable to ancient languages.</i></p>				
	<p>Science</p> <p>Statutory requirements</p> <p>During years 3 and 4, pupils should 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. <p>Notes and guidance (non-statutory)</p> <p><i>Pupils in years 3 and 4 should be given a range of scientific experiences to enable them to raise their own questions about the world around them. They should start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions; recognise when a simple fair test is necessary and help to decide how to set it up; talk about criteria for grouping, sorting and classifying; and use simple keys. They should begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. They should help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.</i></p> <p>Notes and guidance (non-statutory)</p> <p><i>They should learn how to use new equipment, such as data loggers, appropriately. They should collect data from their own observations and measurements, using notes, simple tables and standard units, and help to make decisions about how to record and analyse this data. With help, pupils should look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. With support, they should identify new questions arising from the data, making predictions for new values within or beyond the data they have collected and finding ways of improving what they have already done. They should also recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. Pupils should use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences. These opportunities for working scientifically should be provided across years 3 and 4 so that the expectations in the programme of study can be met by the end of year 4. Pupils are not expected to cover each aspect for every area of study.</i></p>				
	<p>Physical Education</p> <p>Swimming and water safety</p> <p>All schools must provide swimming instruction either in key stage 1 or key stage 2.</p> <p>In particular, pupils should be taught to:</p> <ul style="list-style-type: none"> * swim competently, confidently and proficiently over a distance of at least 25 metres. * use a range of strokes effectively (for example, front crawl, back stroke and breaststroke) * perform safe self-rescue in different water-based situations. 				
	Animals Inc. Humans (Y3)	Rocks (Y3)	Forces (Y3)	Sound (Y4)	

Year 3 & 4	<p>Statutory requirements 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>Notes and guidance (non-statutory) <i>Pupils should continue to learn about the importance of nutrition and should be introduced to the main body parts associated with the skeleton and muscles, finding out how different parts of the body have special functions. Pupils might work scientifically by: identifying and grouping animals with and without skeletons and observing and comparing their movement; exploring ideas about what would happen if humans did not have skeletons. They might compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat. They might research different food groups and how they keep us healthy and design meals based on what they find out.</i></p>	<p>Statutory requirements 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>Notes and guidance (non-statutory) <i>Linked with work in geography, pupils should explore different kinds of rocks and soils, including those in the local environment.</i></p> <p>Notes and guidance (non-statutory) <i>Pupils might work scientifically by: observing rocks, including those used in buildings and gravestones, and exploring how and why they might have changed over time; using a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them. Pupils might research and discuss the different kinds of living things whose fossils are found in sedimentary rock and explore how fossils are formed. Pupils could explore different soils and identify similarities and differences between them and investigate what happens when rocks are rubbed together or what changes occur when they are in water. They can raise and answer questions about the way soils are formed.</i></p>	<p>Statutory requirements Pupils should be taught to:</p> <ul style="list-style-type: none"> * 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>Notes and guidance (non-statutory) <i>Pupils should observe that magnetic forces can act without direct contact, unlike most forces, where direct contact is necessary (for example, opening a door, pushing a swing). They should explore the behaviour and everyday uses of different magnets (for example, bar, ring, button and horseshoe). Pupils might work scientifically by: comparing how different things move and grouping them; raising questions and carrying out tests to find out how far things move on different surfaces and gathering and recording data to find answers their questions; exploring the strengths of different magnets and finding a fair way to compare them; sorting materials into those that are magnetic and those that are not; looking for patterns in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another; identifying how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.</i></p>	<p>Statutory requirements 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>Notes and guidance (non-statutory) <i>Pupils should explore and identify the way sound is made through vibration in a range of different musical instruments from around the world; and find out how the pitch and volume of sounds can be changed in a variety of ways. Pupils might work scientifically by: finding patterns in the sounds that are made by different objects such as saucerpan lids of different sizes or elastic bands of different thicknesses. They might make earbuds from a variety of different materials to investigate which provides the best insulation against sound. They could make and play their own instruments by using what they have found out about pitch and volume.</i></p>
	<p>Stone Age</p> <p>Pupils should be taught about: * changes in Britain from the Stone Age to the Iron Age Examples (non-statutory) <i>This could include:</i> * late Neolithic hunter-gatherers and early farmers, for example, Skara Brae * Bronze Age religion, technology and travel, for example, Stonehenge * Iron Age hill forts, tribal kingdoms, farming, art and culture</p>	<p>Mountains, Rivers, Coasts - UK</p> <p>Human and physical geography * describe and understand key aspects of: * physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle. * name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time.</p>	<p>Romans</p> <p>* the Roman Empire and its impact on Britain Examples (non-statutory) <i>This could include:</i> * Julius Caesar's attempted invasion in 55-54 BC * the Roman Empire by AD 42 and the power of its army * successful invasion by Claudius and conquest, including Hadrian's Wall * British resistance, for example, Boudica * 'Romanisation' of Britain: sites such as Caerwent and the impact of technology, culture and beliefs, including early Christianity.</p>	
Year 5 & 6	<p>Science Statutory requirements During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: * 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. Notes and guidance (non-statutory) <i>Pupils in years 5 and 6 should use their science experiences to: explore ideas and raise different kinds of questions; select and plan the most appropriate type of scientific enquiry to use to answer scientific questions; recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. They should use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. They should make their own decisions about what observations to make, what measurements to use and how long to make them for, and whether to repeat them, choose the most appropriate equipment to make measurements and explain how to use it accurately. They should decide how to record data from a choice of familiar approaches; look for different causal relationships in their data and identify evidence that refutes or supports their ideas. They should use their results to identify when further tests and observations might be needed, recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact. They should use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas and should talk about how scientific ideas have developed over time.</i></p> <p>Notes and guidance (non-statutory) <i>These opportunities for working scientifically should be provided across years 5 and 6 so that the expectations in the programme of study can be met by the end of year 6. Pupils are not expected to cover each aspect for every area of study.</i></p>			
	<p>Forces (Y5)</p> <p>Statutory requirements Pupils should be taught to:</p> <ul style="list-style-type: none"> * explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object * identify the effects of air resistance, water resistance and friction, that act between moving surfaces * recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. <p>Notes and guidance (non-statutory) <i>Pupils should explore falling objects and raise questions about the effects of air resistance. They should explore the effects of air resistance by observing how different objects such as parachutes and sycamore seeds fall. They should experience forces that make things begin to move, get faster or slow down. Pupils should explore the effects of friction on movement and find out how it slows or stops moving objects, for example, by observing the effects of a brake on a bicycle wheel. Pupils should explore the effects of levers, pulleys and simple machines on movement. Pupils might find out how scientists, for example, Galileo Galilei and Isaac Newton helped to develop the theory of gravitation. Pupils might work scientifically by: exploring falling paper cones or cup-cake cases, and designing and making a variety of parachutes and carrying out fair tests to determine which designs are the most effective. They might design and make products that use levers, pulleys, gears and/or springs and explore their effects.</i></p>	<p>Earth & Space (Y5)</p> <p>Statutory requirements Pupils should be taught to:</p> <ul style="list-style-type: none"> * describe the movement of the Earth, and other planets, relative to the Sun in the solar system * describe the movement of the Moon relative to the Earth * describe the Sun, Earth and Moon as approximately spherical bodies * use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. <p>Notes and guidance (non-statutory) <i>Pupils should be introduced to a model of the Sun and Earth that enables them to explain day and night. Pupils should learn 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 (Pluto was reclassified as a 'dwarf planet' in 2006). They should understand that a moon is a celestial body that orbits a planet (Earth has one moon; Jupiter has four large moons and numerous smaller ones). Note: Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses.</i></p> <p>Notes and guidance (non-statutory) <i>Pupils should 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 by considering the work of scientists such as Ptolemy, Alhazen and Copernicus. Pupils might work scientifically by: comparing the time of day at different places on the Earth through internet links and direct communication; creating simple models of the solar system; constructing simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day; finding out why some people think that structures such as Stonehenge might have been used as astronomical clocks.</i></p>	<p>Evolution & Inheritance (Y6)</p> <p>Statutory requirements 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>Notes and guidance (non-statutory) <i>Building on what they learned about fossils in the topic on rocks in year 3, pupils should find out more about how living things on earth have changed over time. They should be introduced to the idea that characteristics are passed from parents to their offspring, for instance by considering different breeds of dogs, and what happens when, for example, labradors are crossed with poodles. They should also appreciate that variation in offspring over time can make animals more or less able to survive in particular environments, for example, by exploring how giraffes' necks got longer, or the development of insulating fur on the arctic fox. Pupils might find out about the work of paleontologists such as Mary Anning and about how Charles Darwin and Alfred Wallace developed their ideas on evolution. Note: At this stage, pupils are not expected to understand how genes and chromosomes work.</i></p> <p>Notes and guidance (non-statutory) <i>Pupils might work scientifically by: observing and raising questions about local animals and how they are adapted to their environment; comparing how some living things are adapted to survive in extreme conditions, for example, cactuses, penguins and camels. They might analyse the advantages and disadvantages of specific adaptations, such as being on two feet rather than four, having a long or a short beak, having gills or lungs, tendrils on climbing plants, brightly coloured and scented flowers.</i></p>	<p>Electricity</p> <p>Statutory requirements 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>Notes and guidance (non-statutory) <i>Building on their work in year 4, pupils should construct simple series circuits, to help them to answer questions about what happens when they try different components, for example, switches, bulbs, buzzers and motors. They should learn how to represent a simple circuit in a diagram using recognised symbols. Note: Pupils are expected to learn only about series circuits, not parallel circuits. Pupils should be taught to take the necessary precautions for working safely with electricity. Pupils might work scientifically by: systematically identifying the effect of changing one component at a time in a circuit; designing and making a set of traffic lights, a burglar alarm or some other useful circuit.</i></p>
	<p>Sustainable World</p> <p>* human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water. * name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time.</p>	<p>Invaders & Settlers (Anglo Saxons & Vikings)</p> <p>* human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources, including energy, food, minerals and water. Britain's settlement by Anglo-Saxons and Scots Examples (non-statutory) <i>This could include:</i> * Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire * Scots invasions from Ireland to north Britain (now Scotland) * Anglo-Saxon invasions, settlements and kingdoms: place names and village life * Anglo-Saxon art and culture * Christian conversion – Canterbury, Iona and Lindisfarne The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor Examples (non-statutory) <i>This could include:</i> * Viking raids and invasion * resistance by Alfred the Great and Athelstan, first king of England * further Viking invasions and Daneland * Anglo-Saxon laws and justice * Edward the Confessor and his death in 1066</p>		<p>Victorians</p> <p>* a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066 Examples (non-statutory) <i>the changing power of monarchs using case studies such as John, Anne and Victoria * changes in an aspect of social history, such as crime and punishment from the Anglo-Saxons to the present or leisure and entertainment in the 20th Century * the legacy of Greek or Roman culture (art, architecture or literature) on later periods in British history, including the present day * a significant turning point in British history, for example, the first railways or the Battle of Britain</i></p>