

St Edward's CE Primary School - Long Term Plan

SCIENCE

Year	Topic	National Curriculum Content	Key Knowledge and vocabulary
Year 1			
Key Skills (Working Scientifically - Year 1/2) <ul style="list-style-type: none"> ➤ 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. 			
Year 1	Plants (Percy the Park Keeper)	<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>Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud</p> <p>Names of trees in the local area</p> <p>Names of garden and wild flowering plants in the local area</p> <p>Make close observations of leaves, seeds, flowers etc.</p> <p>Classify leaves, seeds, flowers etc. using a range of characteristics</p> <p>Identify plants by matching them to named images</p> <p>Make observations of how plants change over a period of time</p> <p>End Points:</p> <ul style="list-style-type: none"> • Understand that there is vast array of plants which all have specific names and that these can be identified by looking at the key characteristics of the plant. Be able to name some common plants and trees. • Understand that plants have common parts and be able to name some. • Know that some trees keep their leaves all year while other trees drop their leaves during autumn and grow them again during spring.
Year 1	Animals (On Safari)	<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>Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves</p> <p>Names of animals experienced first-hand from each vertebrate group</p> <p>Make first hand close observations of animals from each of the groups</p> <p>Compare two animals from the same or different group</p> <p>Classify animals using a range of features</p> <p>Identify animals by matching them to named images</p> <p>Classify animals according to what they eat</p>

			End Points: <ul style="list-style-type: none"> Understand that animals vary in many ways and have different features. Can name some animals that belong to each group. Understand animals eat certain things and are carnivores, herbivores or omnivores. Know that humans and insects are not animals
Year 1	Humans (All about me)	<ul style="list-style-type: none"> identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense 	Senses, touch, see, smell, taste, hear, fingers, skin, eyes, nose, ear and tongue Make first hand close observations of parts of the body e.g. hands, eyes Compare two people Take measurements of parts of their body Look for patterns between people e.g. Do people with big hands have big feet? Classify people according to their features Investigate human senses End Points: <ul style="list-style-type: none"> know that humans and insects are animals Know that humans have 5 senses and can name them and the parts of the body linked to each sense.
Year 1	Everyday Materials (Chocolate)	<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 	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 Classify objects made of one material in different ways e.g. a group of object made of metal Classify in different ways one type of object made from a range of materials e.g. a collection of spoons made of different materials Classify materials based on their properties Test the properties of objects End Points: <ul style="list-style-type: none"> Understand the term material is what an object is made from. Know that all objects are made of one or more material. Can describe different materials by their properties e.g. shiny, stretchy, rough etc.
Year 1	Seasonal Change	<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 	Weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length Collect information about the weather regularly throughout the year Present this information in table and charts to compare the weather across the seasons Collect information, regularly throughout the year, of features that change with the seasons Gather data about day length regularly throughout the year and present this to compare the seasons End Points: <ul style="list-style-type: none"> Can name the four seasons and knows the weather changes in the seasons (e.g. colder and rainier in the winter and hotter and drier in the summer). Knows that a day is longer in the summer and shorter in the winter.

Year 2

Year 2	Animals including Humans (Growth and Survival)	<ul style="list-style-type: none"> 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>Animals including humans have offspring which grow into adults. In humans and some animals these offspring will be young, such as babies or kittens, that grow into adults. In other animals, such as chickens or insects, there may be eggs laid that hatch to young or other stages which then grow to adults. The young of some animals do not look like their parents e.g. tadpoles.</p> <p>All animals including humans have basic needs of feeding, drinking and breathing that must be satisfied in order to survive, and to grow into healthy adults they also need the right amounts and types of food and exercise. Good hygiene is also important in preventing infections and illnesses.</p> <p>Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)</p> <p>End Points:</p> <ul style="list-style-type: none"> Know that animals, including humans, have offspring which grow into adults and that young of some animals do not look like their parents (e.g. tadpoles). Understand that all animals, including humans, have basic needs in order to survive and be able to name them. Know exercise, good hygiene and food from different food groups are needed to be healthy and name some examples for each group.
Year 2	Plants	<ul style="list-style-type: none"> Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Identify and name a variety of plants and animals in their habitats, including micro-habitats 	<p>light, shade, sun, warm, cool, water, grow, healthy</p> <p>Plants may grow from either seeds or bulbs. These then germinate and grow into seedlings which then continue to grow into mature plants.</p> <p>Seeds and bulbs need to be planted outside at particular times of the year and they will germinate and grow at different rates.</p> <p>Plants also need different amounts of water and space to grow well and stay healthy.</p> <p>End Points:</p> <ul style="list-style-type: none"> Understand that plants may grow from either seeds or bulbs and that seeds and bulbs need to be planted outside at particular times of year and they will germinate and grow at different rates. Understand that some plants are better suited to growing in full sun and some grow better in partial or full shade. Plants also need different amounts of water and space to grow well and stay healthy.
Year 2	Uses of Everyday Materials	<ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, 	<p>Names of materials – increased range from year 1</p> <p>Properties of materials - as for year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid</p>

		<p>glass, brick, rock, paper and cardboard for particular uses</p> <ul style="list-style-type: none"> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 	<p>Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing. Bend/bending, stretch/stretching</p> <p>All objects are made of one or more materials that are chosen specifically because they have suitable properties for the task.</p> <p>A material can be suitable for different purposes and an object can be made of different materials.</p> <p>Objects made of some materials can be changed in shape by bending, stretching, squashing and twisting.</p> <p>Classify materials</p> <p>Make suggestions about alternative materials for a purpose that are both suitable and unsuitable</p> <p>Test the properties of materials for particular</p> <p>End Points:</p> <ul style="list-style-type: none"> Understand that objects are made from particular materials because of its properties and can give examples of an object and link the material it's made from and the object's use (eg. Plastic bottle – transparent so you can see the liquid inside it and waterproof). Understand that a material can be suitable for different purposes and an object can be made of different materials. Know that objects made of some materials can be changed in shape by bending, stretching, squashing and twisting.
Year 2	Living Things and their habitats	<ul style="list-style-type: none"> Explore and compare the differences between things that are living, dead and things that have never been alive. Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other Identify and name a variety of plants and animals in their habitats, including micro-habitats 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>Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed, names of local habitats e.g. pond, woodland etc., names of micro-habitats e.g. under logs, in bushes etc.</p> <p>All objects are either living, dead or have never been alive.</p> <p>Animals and plants live in a habitat to which they are suited</p> <p>The habitat provides the basic needs of the animals and plants</p> <p>Within a habitat there are different micro-habitat that have different conditions</p> <p>The plants and animals in a habitat depend on each other for food and shelter etc.</p> <p>The way that animals obtain their food from plants and other animals can be shown in a food chain.</p> <p>End Points:</p> <ul style="list-style-type: none"> Understands that all objects are either living, dead or have never been alive and can find or name examples of these.

			<ul style="list-style-type: none"> Understands that animals and plants live in habitats that they are suited to and that habitats provide the basic needs for the animal (eg. food, shelter, water). Also know that in habitats there are different microhabitats. Knows that a food chain shows how animals get their food and starts with a plant.
Year 3			
Key Skills (Working Scientifically - Year 3/4) <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 3	Plants	<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 	Photosynthesis, pollen, insect/wind pollination, seed formation, seed dispersal – wind dispersal, animal dispersal, water dispersal <p>Many plants have roots, stems/trunks, leaves and flowers/blossom. Pollen, which is produced by the male part of the flower, is transferred to the female part of other flowers (pollination). This forms seeds which are then dispersed in different ways. Different plants require different conditions for germination and growth</p> <p>Observe what happens to plants over time when the leaves or roots are removed</p> <p>Investigate what happens to plants when they are put in different conditions</p> <p>Spot flowers, seeds, berries and fruits outside throughout the year</p> <p>Observe flowers carefully to identify the pollen</p> <p>Observe flowers being visited by pollinators</p> <p>Observe seeds being blown from the trees</p> <p>Research different types of seed dispersal</p> <p>Classify seeds in a range of ways</p> <p>Create a new species of flowering plant</p> <p>End Points:</p> <ul style="list-style-type: none"> Knows the main parts of a plant and the function of each part Understands that some plants produce flowers which enable the plant to reproduce. Knows that different plants require different conditions for germination and growth.
Year 3	Rocks	<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 	Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil <p>Rock is a naturally occurring material</p> <p>There are different types of rock which have different properties.</p> <p>Rocks can be different shapes and</p>

		<ul style="list-style-type: none"> Recognise that soils are made from rocks and organic matter. 	<p>Soils are made up of pieces of ground down rock which may be mixed with plant and animal material</p> <p>The type of rock, size of rock piece and the amount of organic matter affect the property of the soil.</p> <p>Some rocks contain fossils.</p> <p>Observe rocks closely and classify</p> <p>Research using secondary sources how fossils are formed</p> <p>Observe soils closely and classify</p> <p>Research the work of Mary Anning</p> <p>End Points:</p> <ul style="list-style-type: none"> Understand that rock is a naturally occurring material and there are different types of rock which have different properties and have different sizes of grain or crystal. Know that fossils were formed millions of years ago and can explain how fossils are formed.
Year 3	Light	<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>Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous</p> <p>We see objects because our eyes can sense light. Dark is the absence of light.</p> <p>Some objects are sources of light.</p> <p>The light from the sun can damage our eyes and therefore we should not look directly at the Sun</p> <p>Shadows are formed on a surface when an opaque or translucent object is between a light source and the surface and blocks some of the light.</p> <p>The size of the shadow depends on the position of the source, object and surface.</p> <p>End Points:</p> <ul style="list-style-type: none"> Understand that we need light to see and that without any light at all we would not be able to see. To know that some objects are light sources (and be able to name some) but the moon is not a light source. To know that shadows are formed when an opaque or translucent object blocks some of the light and the size of the shadow depends on the position of the light source, object and surface.
Year 3	Forces and magnets	<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 	<p>Force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole</p> <p>A force is a push or a pull. When an object moves on a surface, the texture of the surface and the object affect how it moves.</p> <p>It may help the object to move better or it may hinder its movement A magnet attracts magnetic material.</p> <p>Iron and nickel and other materials containing these are magnetic. The strongest parts of a magnet are the poles.</p>

		<ul style="list-style-type: none"> Predict whether two magnets will attract or repel each other, depending on which poles are facing 	<p>Magnets have two poles – a north pole and a south pole. For some forces to act there must be contact Some forces can act at a distance. The magnet does not need to touch the object that it attracts.</p> <p>End Points:</p> <ul style="list-style-type: none"> Understands that a force is a push or a pull and that the texture of a surface will affect how an object moves on it. Knows that a magnet attracts magnetic material and that the strongest parts of a magnet are called poles. Know that magnets have two poles – a north pole and a south pole and that if two poles the same are brought together they will push away from each other – repel, and if two different poles are brought together they pull together – attract. Understands that for some forces to act, there must be contact (e.g. the wind moving the trees) but some forces can act at a distance (e.g. magnetism - the magnet does not need to touch the object that it attracts).
Year 4			
<p>Key Skills (Working Scientifically - Year 3/4)</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	Living things and their habitats	<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>Classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate</p> <p>Living things can be grouped (classified) in different ways according to their features. Classification keys can be used to identify and name living things. Living things live in a habitat which provides an environment to which they are suited These environments may change naturally. Humans also cause the environment to change. These environments also change with the seasons Observe plants and animals in different habitats throughout the year Use classification keys to name unknown living things Classify living things found in different habitats based on their features Create a simple identification key based on observable features Use fieldwork to explore human impact on the local environment Use secondary sources to find out about how environments may naturally change and to find out about human impact, both positive and negative, on environments</p>

			End Points: <ul style="list-style-type: none"> Know that living things can be grouped (classified) in different ways according to their features and use classification keys. Know that living things live in a habitat which provides an environment to which they are suited (Year 2 learning). Understand that environments may change naturally (e.g. from flooding) and that humans can also cause the environment to change: sometimes for good (setting up nature reserves) but sometimes not good (littering). Know that environments also change with the seasons and different living things can be found in a habitat at different times of the year.
Year 4 (on plan document as Year 3)	Animals including humans	<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 	Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, support, protect, move, skull, ribs, spine, muscles, joints Animals need to eat in order to get the nutrients they need. Food contains a range of different nutrients that are needed by the body to stay healthy Humans and some other animals have skeletons and muscles which help them move and provide protection and support. Classify food in a range of ways Use food labels to explore the nutritional content of a range of food items Use secondary sources to find out they types of food that contain the different nutrients Use food labels to answer enquiry Plan a daily diet contain a good balance of nutrients Explore the nutrients contained in fast food Use secondary sources to research the parts and functions of the skeleton Compare, contrast and classify skeletons of different animals
Year 4	Animals including humans	<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 	Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain Food enters the body through the mouth. Digestion starts when the teeth start to break the food down. Saliva is added and the tongue rolls the food into a ball. The food is swallowed and passes down the oesophagus to the stomach. Here the food is broken down further by being churned around and other chemicals are added. The food passes into the small intestine. Here nutrients are removed from the food and leave the digestive system to be used elsewhere in the body. The rest of the food then passes into the large intestine. Here the water is removed for use elsewhere in the body. What is left is then stored in the rectum until it leaves the body through the anus Humans have four types of teeth Living things can be classified as producers, predators and prey according to their place in the food chain. Research the function of the parts of the digestive system

			<p>Explore eating different types of food</p> <p>Classify animals as herbivores, carnivores or omnivores according to the type of teeth they have in their skulls</p> <p>Use food chains to identify producers, predators and prey within a habitat</p> <p>Use secondary sources to identify animals in a habitat and find out what they eat</p> <p>End Points: Animals/Animals including humans</p> <ul style="list-style-type: none"> Knows the basic sequence of the digestive system and can say what happens at each part. Knows that humans have different types of teeth and be able to name some along with the job they do (e.g. incisors for cutting). Understands that living things can be classified as producers, predators and prey according to their place in the food chain and name some within a habitat.
Year 4	Electricity	<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>Electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect/connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol</p> <p>Many household devices and appliances run on electricity.</p> <p>An electrical circuit consists of a cell or battery connected to a component using wires. If there is a break in the circuit, a loose connection or a short circuit the component will not work.</p> <p>A switch can be added to the circuit to turn the component on and off.</p> <p>Metals are good conductors so they can be used as wires in a circuit. Non-metallic solids are insulators except for graphite (pencil lead).</p> <p>Water, if not completely pure, also conducts electricity</p> <p>Construct a range of circuits</p> <p>Explore how to connect a range of different switches and investigate how they function in different ways</p> <p>Apply their knowledge of conductors and insulators to design and make different types of switch</p> <p>Make circuits that can be controlled as part of a D&T project</p> <p>End Points:</p> <ul style="list-style-type: none"> Knows that an electrical circuit consists of a cell or battery connected to a component using wires and if there is a break in the circuit it will not work. Can make and name the components in a circuit Knows the difference between conductors and insulators and give examples of each.
Year 4	Sound	<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 	<p>Sound, source, vibrate, vibration, travel, pitch (high, low), volume, faint, loud, insulation</p> <p>A sound source produces vibrations which travel through a medium from the source to our ears.</p> <p>Different mediums can carry sound but sound cannot travel through a vacuum</p>

		<ul style="list-style-type: none"> 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 Recognise that sounds get fainter as the distance from the sound source increases 	<p>The vibrations cause parts of our body inside our ears to vibrate, allowing us to hear (sense) the sound.</p> <p>The loudness (volume) of the sound depends on the strength (size) of vibrations Pitch is the highness or lowness of a sound and is affected by features of objects producing the sounds.</p> <p>Classify sound sources</p> <p>Explore making sounds with a range of objects</p> <p>Explore using objects that change in feature to change pitch and volume</p> <p>Measure sounds over different distances</p> <p>Measure sounds through different insulation materials</p> <p>End Points:</p> <ul style="list-style-type: none"> Knows that sound produces vibrations which travel through a medium from the source to our ears. Knows that different mediums such as solids, liquids and gases can carry sound, but sound cannot travel through a vacuum (an area empty of matter). Knows that the loudness (volume) of the sound depends on the strength (size) of vibrations which decreases as they travel through the medium. Therefore, sounds decrease in volume as you move away from the source. Knows that Pitch is the highness or lowness of a sound and is affected by features of objects producing the sounds. For example, smaller objects usually produce higher pitched sounds.
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Year 5

Key Skills (Working Scientifically - Year 5/6)

- planning different types of scientific enquiries to answer questions
- 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 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
- identifying scientific evidence that has been used to support or refute ideas or arguments.

Year 5	Forces	<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>Force, gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears</p> <p>A force causes an object to start moving, stop moving, speed up, slow down or change direction.</p> <p>Gravity is a force that acts at a distance.</p> <p>Air resistance, water resistance and friction are contact forces that act between moving surfaces.</p> <p>A mechanism is a device that allows a small force to be increased to a larger force. Pulleys, levers and gears are all mechanisms, also known as simple machines.</p> <p>Investigate the effect of friction, water resistance and air resistance in a range of contexts</p> <p>Explore how levers, pulleys and gears work</p> <p>Create a timer that uses gravity to move a ball</p>
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			<p>Research how the work of scientists such as Galileo Galilei and Isaac Newton helped to develop the theory of gravitation</p> <p>End Points:</p> <ul style="list-style-type: none"> • Know that a force causes an object to start moving, stop moving, speed up, slow down or change direction: Know about gravity and its impact on our lives • Know that air resistance, water resistance and friction are contact forces that act between moving surfaces and know the effect of these forces. • Know that a mechanism is a device that allows a small force to be increased to a larger force and that Pulleys, levers and gears are all mechanisms, also known as simple machines.
<p>Year 5</p> <p>(on Plan document as Year 4)</p>	<p>States of matter</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>Solid, liquid, gas, state change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle</p> <p>A solid keeps its shape and has a fixed volume. A liquid has a fixed volume but changes in shape to fit the container. A gas fills all available space; it has no fixed shape or volume. Melting is a state change from solid to liquid. Freezing is a state change from liquid to solid. Boiling is a change of state from liquid to gas Evaporation is the same state change as boiling Condensation is the change back from a gas to a liquid caused by cooling. Understanding precipitation and the water cycle Observe closely and classify a range of solids and liquids Explore making gases visible and showing their effect Classify materials according to whether they are solids, liquids and gases Observe a range of materials melting Investigating melting point of different Explore freezing different liquids Use a thermometer to measure temperatures Observe water evaporating Set up investigations to explore changing the rate of evaporation Use secondary sources to find out about the water cycle</p> <p>End Points:</p> <ul style="list-style-type: none"> • Understands and can name the properties of solids, liquids and gases. • Knows about how materials change state and know the temperature at which materials change state (boiling at 100°C and freezing at 0°C) • Know about the water cycle and can explain evaporation and condensation (evaporation is the same state change as boiling, but slower and condensation is the change back from a gas to a liquid caused by cooling).

Year 5	Properties and changes of materials	<ul style="list-style-type: none"> Compare and group together everyday materials on the basis of their properties 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 Give reasons, based on evidence, 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 	<p>Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve reversible/non-reversible change, burning, rusting, new material</p> <p>Materials have different uses depending on their properties and state Properties include hardness, transparency, electrical and thermal conductivity and attraction to magnets. Some materials will dissolve in a liquid and form a solution while others are insoluble and form sediment. Mixtures can be separated by filtering, sieving and evaporation. Some changes to materials are reversible and other are non-reversible Investigate the properties of different materials in order to recommend materials for particular Explore adding a range of solids to water and other liquids Investigate rates of dissolving by carrying out comparative and fair test Separate mixtures by sieving, filtering and evaporation Explore a range of non-reversible changes Carry out comparative and fair tests involving non-reversible changes</p> <p>End Points:</p> <ul style="list-style-type: none"> Understands the properties of materials and use this to explain everyday uses of materials and can group them. Knows and can explain what dissolving means, and give examples of materials that dissolve. Uses their knowledge of liquids, gases and solids to suggest how materials can be recovered from solutions or mixtures (by evaporation, filtering or sieving) and can name equipment used for this. Understands and can describe some simple reversible and non-reversible changes to materials and give examples.
Year 5	Earth and space	<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>Earth, Sun, Moon, (Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune) spherical, solar system, rotates, star, orbit, planets</p> <p>The Sun is a star. It is at the centre of our solar system. There are 8 planets These travel around the Sun in fixed orbits. Earth takes 365¼ days to complete its orbit around the Sun. The Earth rotates on its axis every 24 hours. As Earth rotates half faces the Sun (here it is day) and half is facing away from the Sun (night). As the Earth rotates the Sun appears to move across the sky. The Moon orbits the Earth. It takes about 28 days to complete its orbit. The Sun, Earth and Moon are approximately spherical. Use secondary sources to help create a model Make first-hand observations of how shadows caused by the Sun change through the day Make a sundial Research time zones</p>

			<p>Consider the views of scientists in the past and evidence used to deduce shapes and movements of the Earth, Moon and planets before space travel</p> <p>End Points:</p> <ul style="list-style-type: none"> • Know that the Sun is a star at the centre of our solar system and that there are 8 planets that travel around the Sun in fixed orbits. • Can explain the movement of the Earth and how this produces day and night and knows the time it takes for the earth to orbit the sun • Know about and can explain the movement of the moon relative to the Earth and describes each using the term spherical.
Year 5	Living things and their habitats	<ul style="list-style-type: none"> • Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • Describe the life process of reproduction in some plants and animals 	<p>Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings</p> <p>As part of their life cycle plants and animals reproduce. Most animals reproduce sexually. Some young undergo a further change before becoming adults This is called a metamorphosis. Plants reproduce both sexually and asexually. Bulbs, tubers, runners and plantlets are examples of asexual plant reproduction which involves only one parent. Sexual reproduction occurs through pollination, usually involving wind or insects.</p> <p>Use secondary sources and, where possible, first hand observations to find out about the life cycle of a range of animals Compare the gestation times for mammals and look for patterns Look for patterns between the size of an animal and its expected life span Grow and observe plants that reproduce asexually Take cuttings from a range of plants Plant bulbs and then harvest to see how they multiply Use secondary sources to find out about pollination</p> <p>End Points:</p> <ul style="list-style-type: none"> • Understands and can explain the life cycle of a range of animals and be able to identify similarities and differences between the life cycles. • Knows and can name the key parts of a plant/flower and the roles they play • Understands and can explain the difference between sexual and asexual reproduction and give examples of how plants reproduce in both ways.
Year 5	Animals including humans	<ul style="list-style-type: none"> • Describe the changes as humans develop to old age (This builds on the learning in living things and their habitats) <p><i>Taught alongside PSHE/RSE</i></p>	<p>Puberty: the vocabulary to describe sexual characteristics</p> <p>When babies are young they grow rapidly. They are very dependent on their parents. As they develop they learn many skills. At puberty, a child's body changes and develops primary and secondary sexual characteristics. This enables the adult to reproduce.</p>

Year 6

Key Skills (Working Scientifically - Year 5/6)

- planning different types of scientific enquiries to answer questions
- 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 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
- identifying scientific evidence that has been used to support or refute ideas or arguments.

Year 6	Animals including humans – Sex & Relationship Education (SRE)	<ul style="list-style-type: none"> Describe the changes as humans develop to old age <p><i>Taught alongside PSHE/RSE</i></p>	<p>Puberty: the vocabulary to describe sexual characteristics</p> <p>When babies are young they grow rapidly. They are very dependent on their parents. As they develop they learn many skills. At puberty, a child's body changes and develops primary and secondary sexual characteristics. This enables the adult to reproduce.</p>
Year 6	Living Things and Their Habitats	<ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics. 	<p>Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering and non-flowering</p> <p>Living things can be formally grouped according to characteristics. Plants and animals are two main groups but there are other living things that do not fit into these groups</p> <p>Plants can make their own food whereas animals cannot.</p> <p>Animals can be divided into two main groups – those that have backbones (vertebrates) and those that do not (invertebrates).</p> <p>Vertebrates can be divided into five small groups – fish, amphibians, reptiles, birds and mammals.</p> <p>Each group has common characteristics. Invertebrates can be divided into a number of groups including insects, spiders, snails and worms.</p> <p>Plants can be divided broadly into two main groups – flowering plants and non-flowering plants.</p> <p>Use secondary sources to learn about the formal classification system devised by Carl Linnaeus and why it is important</p> <p>Use first hand observation to identify characteristics shared by the animals in a group</p> <p>Use secondary sources to research the characteristics of animals that belong to a group</p> <p>Use information about the characteristics of an unknown animal or plant to assign it to a group</p> <p>Classify plants and animals presenting this in a range of ways</p> <p>Create an imaginary animal which has features from one or more groups</p> <p>End Points:</p> <ul style="list-style-type: none"> Know that Living things can be grouped according to characteristics and understand that Plants and animals are two main groups but there are other living things that do not fit into these groups e.g. micro-organisms.

			<ul style="list-style-type: none"> • Know that animals can be divided into two main groups (vertebrates and invertebrates) and that these can then be divided again into other groups. • Know that plants can be divided into two main groups (flowering and non-flowering plants) and that plants can make their own food but animals cannot. • Be able to give examples of different living things in these groups and explain reasons for classifying plants and animals in a specific way.
Year 6	Animals Including Humans	<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>Heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs and lifestyle</p> <p>The heart pumps blood in the blood vessels around to the lungs. Oxygen goes into the blood and carbon dioxide is removed. The blood goes back to the heart and is then pumped around the body.</p> <p>Nutrients, water and oxygen are transported in the blood to the muscles and other parts of the body where they are needed. As they are used they produce carbon dioxide and other waste products.</p> <p>Carbon dioxide is carried by the blood back to the heart and then the cycle starts again as it is transported back to the lungs to be removed from the body. This is the human circulatory system.</p> <p>Diet, exercise, drugs and lifestyle have an impact on the way our bodies function.</p> <p>Some conditions are caused by deficiencies in our diet</p> <p>Carry out a range of pulse rate investigations</p> <p>Learn about the impact of exercise, diet, drugs and lifestyle on the body. This is likely to be taught through direct instruction due to its sensitive nature</p> <p>End Points:</p> <ul style="list-style-type: none"> • Be able to explain how the human circulatory system works, naming the main parts and their functions. • Know and be able to explain how diet, exercise, drugs and lifestyle impacts on how the body functions. • Know and can explain how water and nutrients are transported in animals, including humans.
Year 6	Evolution and Inheritance	<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>Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils</p> <p>All living things have offspring of the same kind, as features in the offspring are inherited from the parents. Due to sexual reproduction, the offspring are not identical to their parents and vary from each other.</p> <p>Plants and animals have characteristics that make them suited (adapted) to their environment.</p> <p>If the environment changes rapidly some variations of a species may not suit the new environment and will die. If the environment changes slowly, animals and plants with variations that are best suited survive in greater numbers to reproduce and pass their characteristics on to their young.</p>

			<p>Over time these inherited characteristics become more dominant within the population. Over a very long period of time these characteristics may be so different to how they were originally that a new species is created. This is evolution.</p> <p>Fossils give us evidence of what lived on the Earth millions of year ago and provide evidence to support the theory of evolution.</p> <p>Design a new plant or animal to live in a particular habitat</p> <p>Use models to demonstrate evolution e.g. Darwin's finches bird beak activity</p> <p>Use secondary sources to find out about how the population of peppered moths changed during the industrial revolution</p> <p>Make observations of fossils to identify living things that lived on Earth millions of years ago</p> <p>Identify features in animals and plants that are passed on to offspring</p> <p>Explore this process by considering the artificial breeding of animals or plants e.g. dogs</p> <p>Compare the ideas of Charles Darwin and Alfred Wallace on evolution</p> <p>End Points:</p> <ul style="list-style-type: none"> • Understands and can explain the process of evolution. • Understands and can explain how different plants and animals are suited (adapted) to their environments and link adaptation over time to evolution. • Give examples of living things that lived millions of years ago and the fossil evidence we have to support this. • Understands reproduction and offspring, recognising that offspring vary and are not identical to their parents.
Year 6	Light	<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>Light source, absence of light, transparent, translucent, opaque, shiny, matt, surface, reflect, mirror, straight lines, light rays.</p> <p>Light appears to travel in straight lines and we see objects when light from them goes into our eyes.</p> <p>The light may come directly from light sources but for other objects some light must be reflected from the object into our eyes for the object to be seen.</p> <p>Objects that block light (are not fully transparent) will cause shadows. Because light travels in straight lines the shape of the shadow will be the same as the outline shape of the object.</p> <p>Explore different ways to demonstrate that light travels in straight</p> <p>Explore the uses of the behaviour of light, reflection and shadows such as in periscope design, rear view mirrors and shadow puppets.</p> <p>End Points:</p> <ul style="list-style-type: none"> • Understands and can describe how light travels, in straight lines, from a light source to our eyes or reflected from other objects into our eyes. • Understands and can explain how light travels in straight lines past translucent or opaque objects to form a shadow of the same shape and understands how and why shadows change size.
Year 6	Electricity	<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 	<p>Circuit, complete circuit, circuit diagram, circuit symbol, cell, battery, bulb, buzzer, motor, switch, voltage</p> <p>Adding more cells to a complete circuit will make a bulb brighter, a motor spin faster or a buzzer make a louder sound.</p>

		<ul style="list-style-type: none"> 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>If you use a battery with a higher voltage, the same thing happens. Adding more bulbs to a circuit will make each bulb less bright. Using more motors or buzzers, each motor will spin more slowly and each buzzer will be quieter. Turning a switch off (open) breaks a circuit so the circuit is not complete and electricity cannot flow. Any bulbs, motors or buzzers will then turn off as well.</p> <p>You can use recognised circuit symbols to draw simple circuit diagrams.</p> <p>Explain how a circuit operates to achieve particular operations, such as control the light for a torch with varying brightness or make a motor go faster or slower</p> <p>Make circuits to solve particular</p> <p>Carry out fair tests exploring changes in circuits</p> <p>Make circuits that can be controlled as part of a D&T project</p> <p>End Points:</p> <ul style="list-style-type: none"> Be able to make electric circuits and knows how the number and voltage of cells within a circuit links to the brightness of a light or the volume of a buzzer. Be able to compare and give reasons why components work and do not work in a circuit. Be able to use recognised circuit symbols to draw simple circuit diagrams.
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HISTORY

	Topic	What the children are taught	NC Content Skills and Knowledge See medium term plans for these skills broken down into year groups	Key History Vocabulary taught (see MTP for specific vocabulary content)
Year 1	All about me Life in London	<ul style="list-style-type: none"> changes within living memory (history of grandparents) the lives of significant individuals in the past who have contributed to national and international achievements (Richard III, Queen Elizabeth II, Dr Barnardo, Florence Nightingale, Samuel Pepys, Roald Amundsen, Neil Armstrong) significant historical events, people and places in their own locality 	<ul style="list-style-type: none"> Develop an awareness of the past Use common words and phrases relating to the passing of time (see next column) Understand where the people and events they are studying fit into a chronological framework Identify similarities and differences Ask and answer questions Understand how we find out about the past <p>End Points Year 1:</p> <ul style="list-style-type: none"> ➤ Use common words and phrases relating to the passing of time ➤ Be able to state how times have changed between now and Victorian times 	<p>A long time ago, same/different, change, people, lives, Past, now, modern, old, new</p> <p>History, significant, timeline, order, compare, similar, different, fact, opinion, artefact, event, source, evidence, changes, invention, question, cause, consequences, reason, connections, century, decade, living memory, periods of time</p>
Year 2	The Great Fire of London			

	Explorers	<ul style="list-style-type: none"> events beyond living memory that are significant nationally (Great Fire of London) 	End Points Year 2: <ul style="list-style-type: none"> ➤ Be able to recount relevant facts from The Great Fire of London ➤ To know that Roald Amundsen and Neil Armstrong contributed to international achievements 	
Year 3	Changes in Britain from the Stone Age to Iron Age The Roman Empire and its impact on Britain Britain settlement by Anglo-Saxon and Scots Viking and Anglo-Saxon Struggle for the kingdom of England to the time of Edward the confessor.	<ul style="list-style-type: none"> Develop a chronologically secure knowledge and understanding of British, local and world history Note connections, contrasts and trends over time Address and devise historically valid questions about change, cause, similarity, difference and significance Construct informed responses that involve thoughtful selection and organisation of relevant information Understand that knowledge of the past comes from a range of sources 	<ul style="list-style-type: none"> Develop a chronologically secure knowledge and understanding of British, local and world history 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 	Chronological, Millennium, BC/BCE, AD/CE, era, similarities, differences, Prehistoric, primary, secondary sources, ancient, modern, archaeology, archaeologist, contrasts, trends over time, influence, significant, impact
Year 4	A local History study (Castle Donington) A study of Greek life and achievements and their influence on the western world (Ancient Greece)	<ul style="list-style-type: none"> Understand that knowledge of the past comes from a range of sources 	End Points Year 3: <ul style="list-style-type: none"> ➤ Understand that items found in the past between Stone Age and Iron Age are helping us to build accurate pictures of how people lived ➤ To give some examples of what impact the Roman Empire had on Britain ➤ To recognise different time periods that exist between different groups invading Britain End Points Year 4: <ul style="list-style-type: none"> ➤ To articulate how the Greeks have influenced the Western world ➤ To communicate their understanding of the history of Castle Donington 	
Year 5	A study on the achievements of the earliest civilizations – Ancient Egyptians	<ul style="list-style-type: none"> Develop a chronologically secure knowledge and understanding of British, local and world history Note connections, contrasts and trends over time Address and devise historically valid questions about change, 	<ul style="list-style-type: none"> Develop a chronologically secure knowledge and understanding of British, local and world history 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. 	Cause and effect, propaganda, bias, society, Empire, point of view, objectivity, subjectivity, consequences, legacy, Modern British Values, laws

Year 6	<p>A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066 (Life in Britain leading up to, during and after The Second World War)</p> <p>A study of a Non-European society - Benin</p>	<p>cause, similarity, difference and significance</p> <ul style="list-style-type: none"> Construct informed responses that involve thoughtful selection and organisation of relevant information Understand that knowledge of the past comes from a range of sources 	<ul style="list-style-type: none"> 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>End Points Year 5:</p> <ul style="list-style-type: none"> ➤ To identify the achievements of the Ancient Egyptians and their importance in history <p>End Points Year 6:</p> <ul style="list-style-type: none"> ➤ To name key events leading from the First WW to Second WW and their impact on British history ➤ To describe the key facts about Benin history and how this contrasts with the British history they have covered 	
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GEOGRAPHY


	Topic	What the children are taught	NC Content Skills and Knowledge See medium term plans for these skills broken down into year groups	Vocabulary taught
Year 1	<p>Around and About</p> <p>Chocolate</p> <p>Life in London</p> <p>Safari</p> <p>Percy the Park Keeper</p> <p>Ongoing work/discussion about seasons</p>	<p>Locational knowledge</p> <ul style="list-style-type: none"> Name and locate the world's seven continents and five oceans (both years) Name, locate and identify characteristics of the 4 countries and capital cities of the UK and its surrounding seas (both years) <p>Place knowledge</p> <ul style="list-style-type: none"> Understand geographical similarities and differences through studying the human and physical geography of a small area of UK (Year 1) and of a small area in a contrasting non-European country (Year 2) <p>Human and Physical Geography</p> <ul style="list-style-type: none"> Identify seasonal and daily weather patterns in the UK and the location of hot and cold areas of the world in 	<ul style="list-style-type: none"> ➤ Develop knowledge about the world, the United Kingdom and their locality ➤ Understand basic geographical vocabulary both human and physical ➤ Use first hand observation and geographical skills to enhance local awareness <p>End Points Year 1:</p> <ul style="list-style-type: none"> ➤ Can they say what they like about their locality? ➤ Can they identify the four countries making up the United Kingdom? 	<p>Human: City, town, village, factory, farm, house, office, port, harbour, shop, capital city, country</p> <p>Physical: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season, weather, marine</p> <p>Map and fieldwork: Asia, Africa, North America, South America, Antarctica, Australia/Oceania/Australasia, Europe, Arctic, Southern, Pacific, Atlantic, Indian</p>



Year 2	<p>Climate and countries</p> <p>Islands and Explorers</p>	<p>relation to the Equator and the North and South Poles (both years)</p> <ul style="list-style-type: none"> Use geographical vocabulary to refer to key physical and human features. (both years – see column opposite) <p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> Use simple fieldwork and observational skills to study the geography of their school and its grounds and the human and physical features of surrounding environment (Year 1) Use world maps, atlases and globes to identify the UK and its countries, as well as the countries, continents and oceans studied at this key stage. Use simple compass directions and locational and directional language to describe the geography of their school and its grounds and the key human and physical features of its surrounding area (Year 1, compass directions again in Year 2) 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 (Year 2) 	<ul style="list-style-type: none"> ➤ Can they name some of the main towns and cities in the United Kingdom? ➤ Can they explain the main features of a hot and cold place? ➤ Can they point out where the equator, north pole and south pole are on a globe or atlas? <p>End Points Year 2:</p> <ul style="list-style-type: none"> ➤ Can they name the capital cities of England, Wales, Scotland and N. Ireland? ➤ Can they find where they live on a map of the UK? Can they describe the key physical features of a place using words like beach, coast, forest, hill, mountain, ocean, valley? ➤ Can they name the continents of the world and find them in an atlas? ➤ Can they name the world's oceans and find them in an atlas? 	<p>England, Scotland, Wales, N.Ireland, Belfast, Edinburgh, London, Cardiff, North/Irish/Celtic Seas, English Channel</p> <p>Other: recycle, compass, compass points (NSEW), fieldwork, plan, aerial photograph, map key symbols, Equator, hot/cold, direction, key, continent, globe, atlas, address, right/left, patterns, characteristics, surrounding seas</p>
Year 3	<p>Romans</p> <p>Anglo-Saxons and the Vikings</p>	<p>Locational knowledge</p> <ul style="list-style-type: none"> Locate the world's countries, using maps to focus on Europe (including the location of Russia) Year 3 Locate the world's countries, using maps to focus on North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities - Year 5 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 - Year 3 Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern 	<ul style="list-style-type: none"> ➤ Extend knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America including the location and characteristics of a range of the world's most significant human and physical features. ➤ Develop the use of geographical knowledge, understanding and skills to enhance their locational and place knowledge. <p>End Points Year 3:</p> <ul style="list-style-type: none"> ➤ To name and locate well-known countries and cities in Europe. 	<p>Human: urban, region, Europe, Country, county, economy, trade, energy</p> <p>Physical: landscape, hills and mountains (and UK names e.g, Grampians)</p> <p>Coast, rural, climate, erosion, deposition, earthquake, volcano, water cycle, geology, minerals and rock types, Tundra, coniferous, deciduous, Mediterranean, mountainous, desert</p> <p>Map and fieldwork: observe, measure, record, environmental, region, compass points, ordnance survey map, scale, 4 figure grid,</p>
Year 4	<p>Contrasting Location Study - Castleton</p>			


		<p>Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night) Year 5/6</p> <p>Place knowledge</p> <ul style="list-style-type: none"> Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom - Year 4 Understand geographical similarities and differences through the study of human and physical geography of a region in a European country - Year 6 Understand geographical similarities and differences through the study of human and physical geography of a region within North or South America (Year 5) <p>Human and Physical Geography Describe and understand key aspects of:</p> <ul style="list-style-type: none"> physical geography, including: climate zones, biomes and vegetation belts (Year 5), rivers (Year 5) mountains, volcanoes (Year 3) and earthquakes (Year 3), and the water cycle (Year 5) 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 (Year 4) <p>Geographical skills and fieldwork</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, four 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 (Year 4) 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. 	<ul style="list-style-type: none"> ➤ To use an 8-point compass correctly. ➤ To name up to six cities in the UK. ➤ To name up to six counties in the UK. ➤ To describe how volcanoes are created. ➤ To describe how earthquakes are created. <p>End Points Year 4:</p> <ul style="list-style-type: none"> ➤ Compare and contrast geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom (Castleton) ➤ 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 ➤ Use four 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 worlds 	<p>reference, contours, symbols, minerals, rocks</p> <p>Other: globally significant, land use, mountains, river features, equator, hemisphere, food chain, condensation, evaporation, change/effect</p>
Year 5	Rainforests		<ul style="list-style-type: none"> Extend knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America including the location and characteristics of a range of the world's most significant human and physical features. 	<p>Human: trade, deforestation, derelict, economy</p> <p>Physical: Tributary, confluence, meander, ox bow estuary, mouth source, biomes, climate zones</p> <p>Map and fieldwork: GIS – geographical information systems, global warming, latitude, longitude, north/south</p>

Year 6	<p>A study to compare a region in UK with a European country (France)</p> <p>Adventure</p>		<ul style="list-style-type: none"> Develop the use of geographical knowledge, understanding and skills to enhance their locational and place knowledge. <p>End Points Year 5:</p> <ul style="list-style-type: none"> ➤ Can they explain how the water cycle works? ➤ Can they explain why people are attracted to live by rivers? ➤ Can they name and locate many of the world's major rivers on maps? ➤ Can they locate and name the main countries in South America on a world map and atlas? <p>End Points Year 6:</p> <ul style="list-style-type: none"> Describe geographical similarities and differences through the study of human and physical geography of a region in France 	hemisphere, tropics of Capricorn and Cancer, time differences
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ART AND DESIGN

	Skill Development	What the children are taught	NC Aims
Year 1	Painting Drawing Textiles Printing Textiles	<p><u>Painting a rainbow - Painting</u></p> <ul style="list-style-type: none"> Mix primary colours and shades using different types of paint. <p><u>Christmas Decoration – Textiles</u></p> <ul style="list-style-type: none"> Learn the technique of weaving using a variety of media Learn basic running stitch to join fabric <p><u>African Prints - Printing</u></p> <ul style="list-style-type: none"> Make marks in print with a variety of objects Build a repeating pattern and recognise pattern in the environment. <p><u>Batik - Textiles</u></p> <ul style="list-style-type: none"> Be confident with printing on fabric. <p><u>Drawing Sunflowers - Drawing</u></p>	 <ul style="list-style-type: none"> Produce creative work, exploring ideas and recording experiences Be proficient in drawing, painting, sculpture and other art, craft and design Evaluate and analyse creative works using the language of art, craft and design Know about the great artists, craft makers and designers, and understand the historical and cultural development of their art forms

		<ul style="list-style-type: none"> Use a variety of tools, e.g. pencils, rubbers, crayons, pastels, felt tips, charcoal, ballpoints, chalk and other dry media. <p><u>Leaf Rubbings - Printing</u></p> <ul style="list-style-type: none"> Make rubbings. 	
Year 2	Drawing Painting 3D Form	<p><u>Henri Rousseau – Drawing and Painting</u></p> <ul style="list-style-type: none"> Draw for a sustained period of time from the figure and real objects, including single and grouped objects. Mix a range of secondary colours, shades and tones. Mix and match colours to artefacts and objects.  <p><u>Great Fire of London – Drawing and Painting</u></p> <ul style="list-style-type: none"> Layer different media, e.g. crayons, pastels, felt tips, charcoal and ballpoint. Mix a range of secondary colours, shades and tones. Experiment with tools and techniques, e.g. layering, mixing media, scraping etc. Work on a range of scales e.g. large brush on large paper etc. <p><u>Insect Sculpture – 3D Form</u></p> <ul style="list-style-type: none"> Manipulate clay Experiment with, construct and join natural materials more confidently. 	
Year 3	Drawing Textiles 3D form and painting	<p><u>Vincent Van Gogh – Drawing</u></p> <ul style="list-style-type: none"> Experiment with different grades of pencil and other implements. Draw for a sustained period of time at their own level. Use different media to achieve variations in line, texture, tone, colour, shape and pattern. 	<ul style="list-style-type: none"> Produce creative work, exploring ideas and recording experiences Be proficient in drawing, painting, sculpture and other art, craft and design Evaluate and analyse creative works using the language of art, craft and design

		<p><u>Christmas Decorations – Textiles</u></p> <ul style="list-style-type: none"> Develop skills in stitching, cutting and joining. Experiment with a range of media e.g. overlapping, layering etc. <p><u>Clarice Cliff – 3D form and painting</u></p> <ul style="list-style-type: none"> Join clay adequately and work reasonably independently. Use a developed colour vocabulary. Experiment with different effects and textures eg. blocking in colour, washes, thickened paint etc. Work confidently on a range of scales e.g. thin brush on small picture etc. 	<ul style="list-style-type: none"> Know about the great artists, craft makers and designers, and understand the historical and cultural development of their art forms
Year 4	Drawing Painting 3D Form	<p><u>Self Portraits – Drawing</u></p> <ul style="list-style-type: none"> Explore relationships between line and tone, pattern and shape, line and texture. <p><u>Roy Lichenstein Self-portrait – Painting</u></p> <ul style="list-style-type: none"> Make and match colours with increasing accuracy. Use more specific colour language e.g. tint, tone, shade, hue. Choose paints and implements appropriately. Show increasing independence and creativity with the painting process.  <p><u>John Constable Cloud Study – Painting</u></p> <ul style="list-style-type: none"> Choose paints and implements appropriately. Plan and create different effects and textures with paint according to what they need for the task. <p><u>Anthony Gormley – 3D Form</u></p> <ul style="list-style-type: none"> Plan, design, make and adapt models. Talk about their work understanding that it has been sculpted, modelled or constructed. Use a variety of materials. 	
Year 5	Drawing Painting Sculpture Textiles Printing	<p><u>Oenone Hammersley – Drawing and Painting</u></p> <ul style="list-style-type: none"> Use a variety of source material for their work. Work in a sustained and independent way from observation Work on preliminary studies to test media and materials <p><u>Rainforest animals – Sculpture</u></p> <ul style="list-style-type: none"> Use recycled, natural and man-made materials to create sculpture. Plan a sculpture through drawing and other preparatory work. 	



Space Cross Stitch – Textiles

- Use different grades and uses of threads and needles.
- Extend their work within a specified technique.

Lino Printing – Printing

- Explain a few techniques, e.g the use of poly-blocks, relief, mono and resist printing.
- Organise their work in terms of pattern, repetition, symmetry or random printing styles.



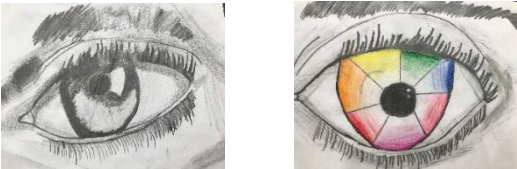
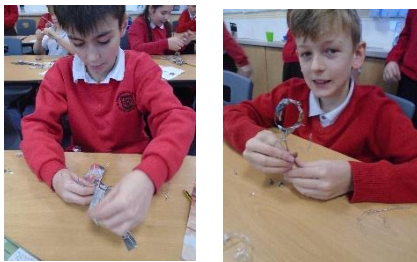
Year 6

Drawing

3D Form

The Eye – Drawing

- Demonstrate a wide variety of ways to make different marks with dry and wet media.
- Manipulate and experiment with the elements of art: line, tone, pattern, texture, form, space, colour and shape.

		 <p><u>Sculptures – 3D Form</u></p> <ul style="list-style-type: none"> Create sculpture and constructions with increasing independence. 	
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MUSIC

	Performing	Improvising and Composing	Listening and Reviewing	Dimensions*
KS1	<p><i>Use their voices expressively and creatively by singing songs and speaking chants and rhymes</i></p> <ul style="list-style-type: none"> Sing simple songs and chants (with actions) building rhythmic and melodic memory Use voices to create sounds – humming, whispers, clicks and whistles Start and stop together on direction Begin to use correct technique when playing a range of percussion instruments Keep a steady beat and copy simple rhythmic patterns 	<p><i>Play tuned and untuned percussion instruments musically. Experiment with, create, select and combine sounds using the interrelated dimensions* of music</i></p> <ul style="list-style-type: none"> Create and clap own rhythms Create patterns of sound – long/short, high/low, loud/quiet Use instruments to reflect a topic or add sound effects to a story Invent symbols to represent sound and create a simple graphic score for pitch or duration that others can follow 	<p><i>Listen with concentration and understanding to a range of high quality live and recorded music</i></p> <ul style="list-style-type: none"> Talk about music heard with appropriate vocabulary Begin to explore how music can affect emotions Recognise how music enriches our lives Compare two contrasting pieces of music for dimensions such as pitch or tempo Think of ways to improve their compositions 	<p>Pitch: recognise and respond to high, low and middle sounds</p> <p>Duration: recognise and respond to a pulse and patterns of long and short sounds</p> <p>Dynamics: understand loud, quiet and silence</p> <p>Tempo: understand fast and slow</p> <p>Timbre: identify different percussion sounds and how they are made</p> <p>Texture: recognise and respond to one sound leading to many sounds</p> <p>Structure: understand and identify beginning, middle and end and use of repetition and structure</p>

Lower KS2	<p>Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression</p> <ul style="list-style-type: none"> • Sing rounds and partner songs (Y3 and 4) • Sing songs with a simple ostinato parts (Y3 and 4) • Sing with a developing understanding of expression and dynamics (both) • Perform simple rhythmic and melodic patterns on a variety of percussion instruments (both) • Read and play up to 3 notes on the recorder with a degree of accuracy and care (Y4) 	<p>Improvise and compose music for a range of purposes using the interrelated dimensions* of music Use and understand staff and other musical notation</p> <ul style="list-style-type: none"> • Represent sounds on a graphic score with symbols for a group performance (Y3 Environment) • Create a soundscape using tuned and untuned percussion (Y3 Environment) • Compose 4 bars of music using 3 notes with an understanding of note value and time signature (Y4) • Staff notation: recognise notes on the staff and note values of crotchet, quaver and minim (Y4) • Understand and use musical terminology within vocal and instrumental composition (both) • Begin to take part in improvisation sessions with confidence (Y4) 	<p>Listen with attention to detail and recall sounds with increasing aural memory 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> <ul style="list-style-type: none"> • Recognise family groups within the orchestra and the importance of the conductor (Y4) • Describe and give opinions of music heard with some use of musical vocabulary (Y4) • Discuss the emotional impact of a piece (Y4) • Identify some of the structural and expressive aspects of the music heard (Y4) • Share ways to improve the composition of others (Y4) 	<p>Pitch: recognise and respond to higher and lower sounds and general shapes of a melody. Begin to recognise steps, leaps and repeated notes Duration: distinguish between a pulse and rhythm. Understand that rhythmic patterns fit to the beat. Begin to understand 4 metre rhythm patterns and syncopated patterns Dynamics: understand louder and quieter in finer graduations Tempo: understand getting faster and slower in finer graduations Timbre: identify a range of instruments by name and how they are played. Texture: recognise different combinations of layers in music Structure: develop an understanding of repetition (ostinato) and contrast (verse/chorus) and repeat signs.</p>
Upper KS2	<ul style="list-style-type: none"> • Confidently sing part songs and rounds with control, expression, phrasing and dynamics (both) • Play percussion instruments with an understanding of pitch, 2, 3 and 4 metre and syncopated rhythms (Y6) • Accurately maintain an independent part within a group in both instrumental 	<ul style="list-style-type: none"> • Represent sounds on a graphic score with symbols for group performance with an awareness of balance, tempo and dynamics (Y6) • Improvise with confidence and an awareness of rhythm, context and purpose (Y5) • Group soundscape composition with 	<ul style="list-style-type: none"> • Describe and give opinions of the music heard with confident use of an extended range of musical terminology (10 pieces) • Listen to music of differing genres (e.g. jazz, blues, classical) and compare and contrast the different styles (10 pieces) • Discuss ways to improve the composition of others 	<p>Pitch: Identify steps, leaps and repeated notes. Identify a major scale pattern and use pitch knowledge to recreate a piece on tuned percussion Duration: Understand 2, 3 and 4 metre rhythm patterns and recognise and use a syncopated rhythm Dynamics: understand how a wider range of dynamics can be used for expressive effect Tempo: understand how a wider range of tempi can be used for expressive effect Timbre: discuss the 'quality' of voice and instruments and families of instruments</p>

	and vocal performance (Y5) <ul style="list-style-type: none"> • Read and play at least 5 notes on a recorder with greater accuracy and independence (Y5) • Perform with control, dynamics and awareness of others (Y5) 	instruments and vocals and a conductor (Y6) <ul style="list-style-type: none"> • Compose four bars of music using up to 5 notes with an understanding of note value and time signature and melody (Y5) • Staff notation: recognise notes on the staff and note values of semiquaver, quaver, crochet, minim and semibreve (Y5) 	using musical dimensions as a guide (Year 5 recorders)	Texture: begin to understand different types of harmony Structure: develop an understanding of conventional musical structures (e.g. repeat signs, rondo, ostinato)
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DESIGN AND TECHNOLOGY

	Topic	What the children are taught	NC Aims See medium term plans for these skills broken down into year groups
Year 1	Bird Feeder Food Technology Fruit Kebabs	Key Stage 1 Design <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world • Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users • Critique, evaluate and test their ideas and products and the work of others • Understand and apply the principles of nutrition and learn how to cook. • <i>suggest how their products could be improved</i>
Year 2	Great fire of London Fire engines Food Technology Bread	Make <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Explore and evaluate a range of existing products • Evaluate their ideas and products against design criteria Technical knowledge <ul style="list-style-type: none"> • Build structures, exploring how they can be made stronger, stiffer and more stable 	

		<ul style="list-style-type: none"> Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Cooking and Nutrition <ul style="list-style-type: none"> Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from 	
Year 3	Stone Age tools Roman Shields Food Technology Viking Sweet Style Pudding	Key Stage 2 Design <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 Make <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 Evaluate <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 Technical knowledge <ul style="list-style-type: none"> Apply their understanding of how to strengthen, stiffen and reinforce Food and Nutrition <ul style="list-style-type: none"> Understand and apply the principles of a healthy and 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 	<ul style="list-style-type: none"> Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users Critique, evaluate and test their ideas and products and the work of others Understand and apply the principles of nutrition and learn how to cook.
Year 4	Electricity and Light Food Technology Greek salad		
Year 5	Egyptian Shadufs Levers and Pulleys Food Technology Leek and Potato Soup / Potato Cheesy Bites		
Year 6	Marble game Food Technology Vegetable Turn Over		

PHYSICAL EDUCATION

	Unit	What the children are taught	NC Aims See schemes of work for these skills broken down into key stages
Year 1	Gymnastics – Flight; Points and Patches; Rock and Rolling; Wide, Narrowed, Circled Games – Developing Partner Work; Ball Skills; Throwing and Catching; Bat and Ball Dance - VS Unit 3 Handa’s Surprise; Unit 4 Rainbow Fish; Unit 5 Bear Hunt Athletics – Leicestershire Scheme of Work Y1 Unit	<ul style="list-style-type: none">• 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.	<ul style="list-style-type: none">• Develop competence to excel in a broad range of physical activities• Are physically active for sustained periods of time• Engage in competitive sports and activities• Lead healthy, active lives.
Year 2	Gymnastics – High and Low; Pathways; Turning, Spinning/Twisting; Linking Movements Games – Throwing and Catching; Making Up Games; Dribbling, Kicking and Hitting; Group Games and Inventing Rules Dance VS Unit 3 Traditional tales Athletics - Leicestershire Scheme of Work Y2 Unit		
Year 3	Gymnastics - Symmetry and Asymmetry; Pathways Games Invasion Games – netball and football; Striking and Fielding Games; Creative Games Dance VS Unit 1 Who am I?; Extreme Earth Swimming – Basic stroke technique and stamina Athletics - Leicestershire Scheme of Work Y3/4 Unit	<ul style="list-style-type: none">• Use running, jumping, throwing and catching in isolation and in combination• Play competitive games, modified where appropriate and apply basic principles suitable for attacking and defending• Develop flexibility, strength, technique, control and balance• 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.	
Year 4	Gymnastics – Balance and Receiving Body Weight; Balance/change of direction and rolling Games Invasion Games; Problem solving and inventing games; net/wall games; striking and fielding Dance - LCP Greek Olympics; Carnival of the Animals Athletics - Leicestershire Scheme of Work Y3/4 Unit		
Year 5	Gymnastics - Bridges; Flight; Circuit training Games - Invasion Games – hockey and soccer, ball handling, striking and fielding, implementing and kicking Dance - LCP Rivers; Bangra Dancing Athletics - Leicestershire Scheme of Work Y5/6 Unit		
Year 6	Gymnastics - Working together; matching, mirroring and Counter-Balance and Counter-Tension		

	Games - invasion games – football/basketball/ tag rugby; striking and fielding – rounders and cricket; Net and Wall - Tennis Dance - Synchronisation; WW2 Athletics - Leicestershire Scheme of Work Y5/6 Unit Outdoor and Adventurous – Team building/challenge		
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COMPUTING

	Unit	What the children are taught	NC Aims See medium term plans for these skills broken down into year groups
Year 1	Basic Computer Skills Digital Media and Animation Presentation E-Safety	<ul style="list-style-type: none"> To log onto a device To be safe, responsible and respectful online. To create pictures and text on documents To take photos and videos <p>End Points Year 1: Knows how to be safe, responsible and respectful online. Knows to tell an adult when they see something unexpected or worrying online. Can press buttons in the correct order to follow a set of instructions Begin to use the word debug when correcting mistakes in programming. Use technology to collect information, including photos, video and sound. Use technology to create and present my ideas. Use the keyboard or a word bank on my device to enter text. Use links (Including favourites) to websites to find information.</p>	<ul style="list-style-type: none"> 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 uses of information technology beyond school To use technology safely and respectfully
Year 2	Basic Computer Skills Research and the Internet Databases Programming E-Safety	<ul style="list-style-type: none"> To log onto a device using personal log on To be safe, responsible and respectful online. To create pictures and text on documents and edit and save them To create a database To programme a device <p>End Points Year 2: Know what kind of information should be kept to themselves when using the internet. Know what they should do if someone is mean to them online. Can verbalise the order to do things to make something happen and talk about this as an algorithm. Program a robot or software to do a particular task. Watch a program execute and spot where it goes wrong before beginning to debug it. Make and save a chart or graph using the data they collect</p>	

		<p>Use technology to organise and present ideas in different ways. Save and open files on the device they use. Begin to understand that other people have created the information they use.</p>	
Year 3	<p>Basic Computer Skills Research and the Internet Presentation Programming E-Safety</p>	<ul style="list-style-type: none"> Knows how digital citizens take responsibility for themselves, their community and their world. Programme a sphero, reviewing and adjust instructions Create a google slide presentation embedding text, image and video Use a search engine Develop word processing skills <p>End Points Year 3: Knows how a strong password can help to protect their privacy. Know that what they post online can affect their identity. Knows what they should do when someone uses mean or hurtful language online. Separates multi-step problems into smaller parts before debugging. Use the repeat commands successfully. Collect data over a short period of time that can help find the answers to a question. Combine a mixture of text, graphics and sound to share learning ideas. Use an appropriate tool to share my work online. Use search tools to find and use an appropriate website. Understands whether images found online can be used in their own work.</p>	<ul style="list-style-type: none"> design, write and debug programs that accomplish specific goals 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 collect, analyse, evaluate and present 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.
Year 4	<p>Basic Computer Skills Research and the Internet Databases & Spreadsheets Programming E-Safety</p>	<ul style="list-style-type: none"> Knows how their online activity affects the digital footprint of themselves and others. Programme a sphero, decomposing complex problems into simple steps. Create and format spreadsheets Validate research from websites Develop word processing skills <p>End Points Year 4: Knows what information about themselves is ok to share online and understands why passwords need to be secure. Knows how their online activity affects the digital footprint of themselves and others Uses an efficient procedure to simplify a program. Understands the need to keep testing out programs whilst putting them together.</p>	

		<p>Organise data in different ways. Choose the best, most efficient way to present data to others. Use photos, video and sound to create an atmosphere when presenting to different audiences. Use a keyboard confidently and make use of a spellchecker to write and review work. Identifies key words to use when searching and create a hyperlink to a resource</p>	
Year 5	<p>Basic Computer Skills Research and the Internet Digital Media & Animation Programming E-Safety</p>	<ul style="list-style-type: none"> • Knows how their online activity affects the digital footprint of themselves and others. • Develop knowledge of browsers and copyright of images • Select use and combine different programmes and software to create a media presentation. • Can programme a Sphero to follow multi-step instructions. <p>End Points Year 5: Knows what Cyberbullying is and what they can do to stop it. Understands what the important parts of an online news article are. Refine a procedure using repeat commands to improve a program. Use 'if' and 'then' commands to select an action. Use logical reasoning to detect and debug Use a spreadsheet and database to collect and record data Present data in an appropriate way. Select use and combine different programmes and software to create a media presentation Select an appropriate online or offline tool to create and share ideas. Use different online communication tools for different purposes. Use a search engine to find appropriate information and check its reliability.</p>	
Year 6	<p>Basic Computer Skills Research and the Internet Spreadsheets Presentation E-Safety</p>	<ul style="list-style-type: none"> • Present work to a high standard using a selected programme • Knows how their online activity affects the digital footprint of themselves and others. • To use the internet safely to research a variety of topics • Use basic formula in spreadsheets <p>End Points Year 6: Knows how to communicate safely on the internet Understands the pros and cons of social media. Explain and program each of the steps in their algorithm. Recognise when I need to use a variable to achieve a required output. Check data collected or provided for accuracy and plausibility.</p>	

		<p>Present data collected in an appropriate way.</p> <p>Combine a range of media, recognising the contribution of each to achieve a particular outcome.</p> <p>Be digitally discerning when evaluating the effectiveness of their own work and the work of others.</p> <p>Select an appropriate tool to communicate and collaborate online.</p> <p>Check the reliability of a website.</p> <p>Understands copyright and acknowledges the sources of information they use from online.</p>	
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RELATIONSHIPS AND SEX EDUCATION (incorporating PSHE)

	Unit	What the children are taught	NC Aims See medium term plans for these skills broken down into year groups
<p>In addition to the Year Group units, the areas below are ongoing:</p> <p>Physical Health and Fitness: The importance of building regular exercise into daily and weekly routines and how to achieve this; for example, walking or cycling to school, a daily active mile or other forms of regular, vigorous exercise</p> <p>Mental Health and Wellbeing: The benefits of physical exercise, time outdoors, community participation, voluntary and service-based activity, on mental wellbeing and happiness</p> <p>Being Safe: How to ask for advice or help for themselves or others and to keep trying until they are heard</p> <p>Respectful Relationships: The conventions and courtesy of manners</p> <p>The importance of respecting others, even when they are very different from them; that they can expect to be treated with respect by others, and that they in turn should show due respect to others, including those in positions of authority</p> <p>Internet Safety and Harms: Through ongoing computing and safer internet practise, and Internet Safety Day: Why social media, some computer games and online gaming are age restricted</p> <p>Health and Prevention – All classes regularly go over the importance of personal hygiene, the spread of germs and viruses and importance of handwashing.</p> <p>Health and Prevention – We take the opportunity during vaccination times, to explore the need for immunisation provided through vaccination.</p> <p>Basic First Aid is covered through the Year 5 First Aid Day and Year 6 visit The Safety Zone</p>			
Year 1	Beginning and Belonging	<ul style="list-style-type: none"> Creating a classroom where they can learn safely and happily Building relationships within the classroom Coping with new situations in school 	*Endpoints to reach by the end of KS 2 Families and People who care for me

	<p>Family and Friends</p> <p>Managing risk</p> <p>Safety contexts</p> <p>Relationships and Sex Education</p>	<ul style="list-style-type: none"> • Knowing how to find support • Developing friendship skills • Valuing difference • Families and other special people • Explore what sort of boundaries are appropriate in friendships with peers and others <ul style="list-style-type: none"> • Knowing how to find support • Identify risky situations • Identify emotions associated with risks • Understand strategies to use in risky situations • Explore how to respond to adults they encounter whom they do not know • Receiving and giving help <ul style="list-style-type: none"> • Explore dangers posed by traffic, the sun, water and getting lost • Identify characteristics of safe places to play • Understand ways of preventing accidents <p><u>Body knowledge</u></p> <ul style="list-style-type: none"> – Name for external parts of body including sexual parts <p><u>Body functions and changes</u></p> <ul style="list-style-type: none"> – Examples of what our body can do e.g. skipping, writing and discuss favourite activities <p><u>Body awareness and image</u></p> <ul style="list-style-type: none"> - understand they have responsibility for their body's actions - understand their body belongs to them - things we do privately – toilet/changing - which parts of our body are private <p><u>Personal hygiene</u></p> <ul style="list-style-type: none"> – How to keep themselves clean at home e.g. cleaning teeth – How to keep clean at school e.g. washing hands <p><u>Illness and disease prevention</u></p> <p>How germs can enter the body and how to prevent</p>	<ul style="list-style-type: none"> • the characteristics of healthy family life, • that others' families, either in school or in the wider world, sometimes look different from their family • that marriage represents a formal and legally recognised commitment of two people to each other which is intended to be lifelong. • how to recognise if family relationships are making them feel unhappy or unsafe <p>Caring friendships</p> <ul style="list-style-type: none"> • how important friendships are in making us feel happy and secure and the characteristics of friendships; • how to recognise who to trust and who not to trust, how to judge when a friendship is making them feel unhappy or uncomfortable, managing conflict, how to manage these situations <p>Respectful relationships</p> <ul style="list-style-type: none"> • The importance of respecting others, even when they are very different from them • The conventions of courtesy and manners. • The importance of self-respect and how this links to their own happiness • About different types of bullying (including cyberbullying), the impact of bullying, responsibilities of bystanders and how to get help. • What a stereotype is, and how stereotypes can be unfair, negative or destructive. • The importance of permission-seeking and giving in relationships with friends, peers and adults.
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Year 2	Personal Safety	<ul style="list-style-type: none"> Identify trusted adults Use the senses to help identify safe places to play Understand the need for a safety strategy Identify and name body parts including sexual parts Identify and distinguish between 'yes' and 'no' touches Recognise 'good' and 'bad' touches and tricks Assess risks to keep safe & Use assertive voice and body language Understand What, When, Who and How to tell 	<p>Online relationships</p> <ul style="list-style-type: none"> That people sometimes behave differently online, including by pretending to be someone they are not. That the same principles apply to online relationships as to face-to-face relationships, The rules and principles for keeping safe online How to critically consider their online friendships and sources of information How information and data is shared and used online. <p>Being safe</p> <ul style="list-style-type: none"> What sorts of boundaries are appropriate in friendships with peers and others About the concept of privacy The differences between appropriate and inappropriate or unsafe physical, and other contact. How to respond safely and appropriately to adults they may encounter (in all contexts, including online) whom they do not know. How to recognise and report feelings of being unsafe or feeling bad about any adult and how to report concerns or abuse, and the vocabulary and confidence needed to do so and where to get advice e.g. family, school and/or other sources.
	My emotions	<ul style="list-style-type: none"> Understand and manage feelings Know how to get support when they need it Understand and manage the impact of feelings Explore what 'relaxed' and 'calm' mean Explore assertiveness Use a problem-solving process with help 	
	Drug Education	<ul style="list-style-type: none"> Explore what happens when substances such as food, drink and medicines enter the body Explore medicines and how all medicines are drugs, but not all drugs are medicine Explore how all drugs and all household substances are harmful if not used properly Explore how to avoid risky situations and influences and how to find support 	
	Anti-Bullying	<ul style="list-style-type: none"> Defining bullying Explore causes and types of bullying Understand how bullying makes us feel Identify strategies and where to find support in school - it is essential that they discuss their feelings with a trusted adult to avoid isolation and loneliness Know how to respond if others are bullied Explore how a caring ethos is promoted in school, encouraging positive and safe relationships Understand that resorting to violence is never right 	
	Relationships and Sex Education	<p><u>The human life cycle</u></p> <ul style="list-style-type: none"> Humans have babies which turn into adults Recognise baby animals and their parents Understand our parents were once babies <p><u>Growing up</u></p> <ul style="list-style-type: none"> Describe things they can know do that they couldn't when they were a baby 	

		<ul style="list-style-type: none"> – Describe ways body changes as get older e.g. adult teeth, get taller <p><u>Personal responsibilities</u></p> <ul style="list-style-type: none"> – Explain things they did as a baby e.g. cry, first words etc – Describe responsibilities they know have e.g. setting table/folding clothes/ getting dressed – How they can help others now older <p><u>Parents Carers Families</u></p> <ul style="list-style-type: none"> – What does a parent have to do for a baby? – What does a baby need to stay happy and healthy? 	
Year 3	<p>Family and Friends</p> <p>Healthy Lifestyles</p> <p>Anti-Bullying</p>	<ul style="list-style-type: none"> • Developing friendship skills • Valuing differences between ourselves and seeing things from different points of view • Identifying people who are special to them • Explore how there are different patterns of family life • Refer to how marriage represents a formal and legally recognised commitment of two people to each other which is intended to be lifelong • Knowing how to find support and how to recognise if family relationships are making them feel unhappy or unsafe, and how to seek help or advice from others if needed <ul style="list-style-type: none"> • Understand what makes a healthy and balanced lifestyle - emphasise what constitutes a healthy diet including understanding calories and other nutritional content building from Year 2 Science and linking to Year 3 • Understand the importance of healthy eating • Understand how dental hygiene contributes to a healthy lifestyle • Emphasise importance of sufficient good quality sleep for good health and that lack of sleep can affect weight, mood and ability to learn • Emphasise the risks associated with an inactive lifestyle (including obesity) • How to recognise early signs of physical illness such as weight loss or unexpected changes to the body • Reflect on their own lifestyles and take responsibility for making healthy choices • Ensure they know how and when to seek support including which adults to speak to in school if they are worried about their health <ul style="list-style-type: none"> • Understand key characteristics of bullying and different forms including cyberbullying • Understand that resorting to violence is never right 	

		<ul style="list-style-type: none"> – Name some changes to their body and opposite sex during puberty e.g. periods, voice breaking, pubic hair 	
Year 5	My emotions	<ul style="list-style-type: none"> • Understanding and managing feelings, the impact they can have and explore strategies to help them cope • Concentrate on individual emotions – boredom, worry and stress • Use the ‘problem-solving process’ to help myself and others • To be able to get support when it is needed • Refer to how it is common for people to experience mental ill health. For many who do, the problems can be resolved if the right support is made available, especially if accessed early enough • Build confidence and assertiveness 	
	Financial Capability	<ul style="list-style-type: none"> • Explore the history of money, trade and currencies • Explore a range of jobs, skills and pay and reasons for deductions on earnings • Differentiate between essentials and desires • Know how to plan for the immediate and more distant future • Focus on financial responsibility and feelings about money • Manage money in a real-life situation 	
	Anti Bullying	<ul style="list-style-type: none"> • Define bullying through comparing and contrasting different forms i.e. physical, verbal, indirect, cyberbullying • Understand that resorting to violence is never right • Understand personal factors or circumstances that may cause someone to engage in bullying or become a target • Understand the feelings of all those involved in bullying – those who are bullied, perpetrators, followers and bystanders • Understand strategies for responding to bullying including responding assertively • Reinforce that it is essential that they discuss their feelings with a trusted adult, to avoid isolation and loneliness 	
	Managing Change	<ul style="list-style-type: none"> • Identify a range of situations which involve loss and change • Develop coping with emotions in loss and change situations • Recognise a range of changes that occur during a lifetime and develop strategies for coping with future changes 	
	Relationships and Sex Education	<p><u>Body knowledge</u></p> <ul style="list-style-type: none"> – Name sexual parts of males and females seen outside the body – Name sexual parts of males and females seen inside the body 	

		<ul style="list-style-type: none"> - Acceptable words for sexual parts to use in class and which words can be rude/offensive <p><u>Body functions and changes</u></p> <ul style="list-style-type: none"> - Understand that physical changes happen at different rates for different people - Worries about puberty and how to cope with these <p><u>Body awareness/images</u></p> <ul style="list-style-type: none"> - Describe why like a part of their body - How positive comments about appearance make people feel good - Fashion/media influence/desire to look like friends <p><u>Personal hygiene</u></p> <ul style="list-style-type: none"> - Name personal hygiene products relevant to puberty - Name body parts to be washed daily during puberty <p><u>Illness/disease prevention</u></p> <ul style="list-style-type: none"> - Name some infectious diseases and ways they can be spread - Explain how they can reduce spread of common diseases - Describe how HIV can be stopped from spreading <p><u>The human lifecycle</u></p> <ul style="list-style-type: none"> - Know the facts of the human lifecycle, including sexual intercourse 	
Year 6	<p>Family and Friends</p> <p>Diversity and Communities</p>	<ul style="list-style-type: none"> • Identify who is in their network of special people • Understanding and valuing differences within individuals and families • Recognise some of the pressures on relationships and develop strategies to manage them • Know how to access support • Identify ways in which they already do or could support others - recognising if family relationships are making them feel unhappy or unsafe and how to seek help or advice • Recognise and report feelings of being unsafe or feeling bad about any adult • Explore what sort of boundaries are appropriate in friendships with peers and others • Explore their own identity and that of others • Understand aspects of the ethnic make-up of the local community and the national context • Recognise negative effects of stereotyping and prejudice • Recognise the different communities they belong to 	

	<p>Drug Education</p> <p>Safety Context</p> <p>Relationships and Sex Education</p>	<ul style="list-style-type: none"> • Know about the role of the media and how it can influence them and their community • Explore caring for the environment, animals and plants • Explore drug types and effects including medicines (prescribed and over the counter) legal recreational and illegal • Understand the role of medicines in promoting, improving and sustaining health • Develop their knowledge, understanding and attitudes relating to alcohol, cigarettes, solvents and their effects, risks and consequences • Begin to learn about the law relating to the use and misuse of legal and illegal drugs • Recognise a range of risky situations relating to drugs and substances and know where to find further information and advice • Talk about situations where staying safe is important • Identify safety issues when cycling • Identify ways to stay safe in the sun and have strategies to keep themselves safe • Identify a wider range of risky situations and have realistic strategies for staying safe e.g. railway line • Understand the rules for keeping people safe in school • Understand how to prevent a wider range of accidents <p><u>The Human Lifecycle</u></p> <ul style="list-style-type: none"> – What happens at a human birth <p><u>Growing up</u></p> <ul style="list-style-type: none"> – What they are looking forward to/not looking forward to about becoming a teenager/adult <p><u>Personal responsibilities</u></p> <ul style="list-style-type: none"> – Their responsibilities for the feelings/wellbeing of others <p><u>Parents Carers Families</u></p> <ul style="list-style-type: none"> – Understand there are different types of love – Special ways people ‘in love’ might behave – The need for trust, love and commitment in adult marriage/established relationships – How commitment can be shown – Why people who are in love may choose to have a baby 	
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		<ul style="list-style-type: none"> Understand and respect a wide range of family relationships e.g. same sex partners, extended families, fostering, second marriages etc 	
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	What the children are taught	SACRE Aims See the Agreed Syllabus medium term plans for these skills broken down into year groups
Year 1	1.1 Who is a Christian and what do they believe? 1.8 How should we care for others and the world and why does it matter? 1.6 How and Why do we celebrate special and sacred times?	Believing Know about and understand a range of religions and worldviews, so that they can: <ul style="list-style-type: none"> describe, explain and analyse beliefs and practices, recognising the diversity which exists within and between communities and amongst individuals identify, investigate and respond to questions posed, and responses offered by some of the sources of wisdom found in religions and worldviews appreciate and appraise the nature, significance and impact of different ways of life and ways of expressing meaning. Expressing Express ideas and insights about the nature, significance and impact of religions and worldviews, so that they can: <ul style="list-style-type: none"> explain reasonably their ideas about how beliefs, practices and forms of expression influence individuals and communities express with increasing discernment their personal reflections and critical responses to questions and teachings about identity, diversity, meaning and value, including ethical issues appreciate and appraise varied dimensions of religion. Living Gain and deploy the skills needed to engage seriously with religions and worldviews, so that they can: <ul style="list-style-type: none"> find out about and investigate key concepts and questions of belonging, meaning, purpose and truth, responding creatively
Year 2	1.7 What does it mean to belong to a faith community? 1.2 Who is a Muslim and what do they believe? 1.5 What makes some place sacred? (Include visit to church)	
Year 3	L2.4 Why do people pray? L2.3 Why is Jesus inspiring to some people? L2.9 What can we learn from religions about deciding what is right and wrong?	
Year 4	L2.5 Why are festivals important to religious communities? L2.8 What does it mean to be a Hindu in Britain today? L2.6 Why do some people think that life is a journey and what significant experiences mark this?	
Year 5	U2.6 What does it mean to be a Muslim in Britain today? U2.1 Why do some people believe God exists? U2.7 What matters most to Christians and Humanists?	
Year 6	What would Jesus do? U2.3 What do religions say when life gets hard? Creation and Science: Competing or Complementary?	

		<ul style="list-style-type: none"> • enquire into what enables different individuals and communities to live together respectfully for the wellbeing of all • articulate beliefs, values and commitments clearly in order to explain why they may be important in their own and other people's lives
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FRENCH

	What the children are taught	NC Aims See medium term plans for these skills broken down into year groups
Year 3	<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 	<p>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>End Points: Year 3 – Sounds, words & simple sentences Starting to recognise the sounds and patterns of the French language. Producing a simple sentence and answering a familiar question. Year 4 – Short sentences and question patterns Speaking, reading and writing short sentences and questions. Recognising the sound of some letter strings. Exploring simple grammatical concepts Year 5 – More complex sentences and questions Developing an awareness of question forms. Speaking, reading and writing more complex word order. Improving letter and sound links. Year 6 – Initiating and manipulating language Consolidating understanding of basic grammar and applying it creatively to speaking, reading and writing. Developing confident pronunciation.</p>
Year 4	<ul style="list-style-type: none"> • Appreciate stories, songs, poems and rhymes in the language • Listen attentively to spoken language and show understanding by joining in and responding • Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases 	
Year 5	<ul style="list-style-type: none"> • Listen attentively to spoken language and show understanding by joining in and responding • Speak in sentences, using familiar vocabulary, phrases and basic language structures • Present ideas and information orally to a range of audiences • Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help • Read carefully and show understanding of words, phrases and simple writing • Broaden their vocabulary and develop their ability to understand new words • Understand basic grammar 	
Year 6	<ul style="list-style-type: none"> • Listen attentively to spoken language and show understanding by joining in and responding 	

	<ul style="list-style-type: none">• Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help• 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	
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