

Science					
Sequence of Units & core knowledge sequence					
			Unit(s)	Focus	Assessment Focus Central substantive knowledge/concepts & application of these 'Sticky Knowledge'
Early Years	Reception		Science forms part of the <i>Understanding the World</i> section of the Early Years Framework. Typical areas include guiding children to make sense of their physical world through opportunities to explore, observe and find out about people and the environment. Children will learn about similarities and differences in relation to objects, materials and living things. They talk about the features of their own immediate environments and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.	The focus will follow the children's interests. Typical examples of activities have included... <ul style="list-style-type: none"> Examining changes over time by melting ice and making ice balloons Exploring new life by planting seeds Observing changes in tadpoles and caterpillars as they grow. 	<ul style="list-style-type: none"> Give examples of changes that may be visible. E.g. be able to say what changed about the caterpillar as it grew into a butterfly.
Key Stage 1	Yr1&2 Cycle A	Autumn	Animals including humans (animal focus) Year 1 N.C. P.O.S.	<ul style="list-style-type: none"> identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals identify and name a variety of common animals that are carnivores, herbivores and omnivores describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense <i>identify and classify. For example, pupils might work scientifically by: using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells.</i> 	<ul style="list-style-type: none"> Define carnivore, herbivore and omnivore. Name five different categories of animal (fish, amphibian, reptile, bird and mammal). Say what is different about two types of animal. E.g. be able to answer: <i>How is a fish different to a bird?</i> Name the five senses and which parts of the human body are associated with each.
		Spring	Animals including humans (human focus) Year 2 N.C. P.O.S.	<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 <i>ask simple questions and recognise that they can be answered in different ways. E.g. Pupils might work scientifically by: observing, through video or first-hand observation and measurement, how different animals, including humans, grow; asking questions about what things animals need for survival and what humans need to stay healthy; and suggesting ways to find answers to their questions.</i> 	<ul style="list-style-type: none"> Be able to list the stages of human growth – baby, child, adolescent and adult. Be able to list an animal's basic needs. Say why it is important to eat healthily/ why it is important to exercise.
		Summer	Plants Year 1 and 2 N.C. P.O.S.	<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 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 <i>use their observations and ideas to suggest answers to questions. For example, pupils might work scientifically by: observing closely, perhaps using magnifying glasses, and comparing and contrasting familiar plants; describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees. Pupils might keep records of how</i> 	<ul style="list-style-type: none"> Be able to state the difference between a deciduous and an evergreen tree. Be able to label root, stem, leaf and flower on a diagram of a flowering plant/tree. List the stages of growth from seed to mature plant. Know what plants need in order to stay healthy.

				<p><i>plants have changed over time, for example the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants. They could also work scientifically by: observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.</i></p>	
Yr1&2 Cycle B	Autumn	<p>Everyday materials and uses of everyday materials</p> <p>Year 1 and 2 N.C. P.O.S.</p>	<ul style="list-style-type: none"> distinguish between an object and the material from which it is made identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials on the basis of their simple physical properties identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching perform simple tests. <i>For example, pupils might work scientifically by: performing simple tests to explore questions, for example: 'What is the best material for an umbrella? ...for lining a dog basket? ...for curtains? ...for a bookshelf? ...for a gymnast's leotard?' They may also work scientifically by: comparing the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs); observing closely, identifying and classifying the uses of different materials, and recording their observations.</i> 	<ul style="list-style-type: none"> Classify a variety of common objects based on their main material. State which objects can be bent, twisted, stretched etc. Say why an object is suitable for its use, e.g. <i>why is a saucepan made of metal and not plastic?</i> List the properties of materials like glass, wood or metal. 	
		<p>Seasonal changes (summer into autumn, and autumn into winter)</p> <p>Year 1 N.C. P.O.S.</p>	<ul style="list-style-type: none"> observe changes across the 4 seasons observe and describe weather associated with the seasons and how day length varies gather and record data to help in answering questions. <i>For example, pupils might work scientifically by: making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.</i> 	<p>This will need to be assessed at the end of the year.</p>	
	Spring	<p>Seasonal changes (winter into spring)</p> <p>Year 1 N.C. P.O.S.</p>	<ul style="list-style-type: none"> observe changes across the 4 seasons observe and describe weather associated with the seasons and how day length varies 	<p>This will need to be assessed at the end of the year.</p>	
	Summer	<p>Living things and their habitats</p> <p>Year 2 N.C. P.O.S.</p>	<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 microhabitats describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food observe closely, using simple equipment. <i>For example, pupils might work scientifically by: sorting and classifying things according to whether they are living, dead or were never alive, and recording their findings using charts. They should describe how they decided where to place things, exploring questions for example: 'Is a flame alive? Is a deciduous tree dead in winter?' and talk about ways of answering their questions. They could construct a simple food chain that includes humans (e.g. grass, cow, human). They could describe the conditions in different habitats and micro-habitats (under log, on stony path, under bushes) and find out how the conditions affect the number and</i> 	<ul style="list-style-type: none"> state the difference between living things, things that are dead and things that have never been alive describe how a particular animal is suited to its habitat be able to list some of the plants and animals that can be found in a particular habitat. Draw and label a simple food chain. 	

			Seasonal changes (spring into summer) Year 1 N.C. P.O.S.	<p><i>type(s) of plants and animals that live there</i></p> <ul style="list-style-type: none"> observe changes across the 4 seasons observe and describe weather associated with the seasons and how day length varies 	<ul style="list-style-type: none"> Identify key features of each season, e.g. leaves fall off the trees in autumn, flowers begin to grow in spring etc.etc. Know that the days are generally colder and shorter in winter and warmer and longer in summer.
Key Stage 2	Yr 3&4 Cycle A	Autumn	<p>Rocks</p> <p>Year 3 N.C. P.O.S.</p>	<ul style="list-style-type: none"> compare and group together different kinds of rocks on the basis of their appearance and simple physical properties describe in simple terms how fossils are formed when things that have lived are trapped within rock recognise that soils are made from rocks and organic matter <i>use straightforward scientific evidence to answer questions or to support their findings. e.g. Pupils might work scientifically by: observing rocks, including those used in buildings and gravestones, and exploring how and why they might have changed over time; using a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them. Pupils might research and discuss the different kinds of living things whose fossils are found in sedimentary rock and explore how fossils are formed. Pupils could explore different soils and identify similarities and differences between them and investigate what happens when rocks are rubbed together or what changes occur when they are in water. They can raise and answer questions about the way soils are formed.</i> 	<ul style="list-style-type: none"> Know the difference in how igneous, sedimentary and metamorphic rocks are formed. Explain how a fossil is formed. Name two things you would expect to find in any soil.
			<p>States of matter</p> <p>Year 4 N.C. P.O.S.</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 make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <i>E.g. Pupils might work scientifically by: grouping and classifying a variety of different materials; exploring the effect of temperature on substances such as chocolate, butter, cream (for example, to make food such as chocolate crispy cakes and ice-cream for a party). They could research the temperature at which materials change state, for example, when iron melts or when oxygen condenses into a liquid. They might observe and record evaporation over a period of time, for example, a puddle in the playground or washing on a line, and investigate the effect of temperature on washing drying or snowmen melting</i> 	<ul style="list-style-type: none"> Be able to sort a variety of items by category of solid, liquid or gas. Explain the changes that happen to water when it is cooled/heated. Explain the water cycle.
		Spring	<p>Forces and magnets</p> <p>Year 3 N.C. P.O.S.</p>	<ul style="list-style-type: none"> compare how things move on different surfaces notice that some forces need contact between 2 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 2 poles predict whether 2 magnets will attract or repel each other, depending on which poles are facing set up simple practical enquiries, comparative and fair tests, e.g. <i>Pupils might work scientifically by: comparing how different things move and grouping them; raising questions and carrying out tests to find out how far things move on different surfaces and gathering and recording data to find answers their questions; exploring the</i> 	<ul style="list-style-type: none"> Can sort objects that into magnetic/not magnetic. Know that on a magnet, like poles repel and opposites attract. Understand friction slows objects down.

			<p><i>strengths of different magnets and finding a fair way to compare them; sorting materials into those that are magnetic and those that are not; looking for patterns in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another; identifying how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.</i></p>	
	Summer	<p>Light Year 3 N.C. P.O.S.</p> <p>Electricity Year 4 N.C. P.O.S.</p>	<ul style="list-style-type: none"> • recognise that they need light in order to see things and that dark is the absence of light • notice that light is reflected from surfaces • recognise that light from the sun can be dangerous and that there are ways to protect their eyes • recognise that shadows are formed when the light from a light source is blocked by an opaque object • find patterns in the way that the size of shadows change • record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables, e.g. <i>Pupils might work scientifically by: looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes. Then they could record their findings in diagrams, tables and charts.</i> • 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 • use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. e.g. <i>Pupils might work scientifically by: observing patterns, for example, that bulbs get brighter if more cells are added, that metals tend to be conductors of electricity, and that some materials can and some cannot be used to connect across a gap in a circuit. On the basis of these observations children could make further predictions – for example, they have observed a bulb getting brighter if more cells were added and can then predict that a buzzer would become louder with more cells.</i> 	<ul style="list-style-type: none"> • Recognise that we cannot see without light. • Recognise that all objects reflect light and this is how we see them. • Name ways to protect our eyes from the sun. • Explain how a shadow is formed. • Sort common appliances into electrical and non-electrical. • Construct a simple circuit. • Predict if a circuit will or will not work. • Identify some common electrical conductors and insulators.
Yr 3&4 Cycle B	Autumn	<p>Animals including humans Year 3 and Year 4 N.C. P.O.S.</p>	<ul style="list-style-type: none"> • identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat • identify that humans and some other animals have skeletons and muscles for support, protection and movement • 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 • gather, record, classify and present data in a variety of ways to help in answering questions. E.g. <i>Pupils might work scientifically by: identifying and grouping animals with and without skeletons and observing and comparing their movement; exploring ideas about what would happen if humans did not have skeletons. They might compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat. They might research different food groups and how they keep us healthy and design meals based on what they find out. They could compare the teeth of</i> 	<ul style="list-style-type: none"> • Understand that plants and animals obtain food in different ways. • Identify the different food groups and give examples of each, e.g. protein is found in meat. • Identify the main bones in the body and how a skeleton protects, supports and helps the body to move. • Explain how pairs of muscles work together to enable movement.

				<i>carnivores and herbivores, and suggest reasons for differences; find out what damages teeth and how to look after them. They might draw and discuss their ideas about the digestive system and compare them with models or images.</i>	
	Spring	Sound Year 4 N.C. P.O.S.		<ul style="list-style-type: none"> • identify how sounds are made, associating some of them with something vibrating • recognise that vibrations from sounds travel through a medium to the ear • find patterns between the pitch of a sound and features of the object that produced it • find patterns between the volume of a sound and the strength of the vibrations that produced it • recognise that sounds get fainter as the distance from the sound source increases • report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. E.g. <i>Pupils might work scientifically by: making earmuffs from a variety of different materials to investigate which provides the best insulation against sound. They could report back their findings in a PowerPoint (good ideas for this can be found on Hamilton Trust's website).</i> 	<ul style="list-style-type: none"> • Know that sound is made by vibration. • Explain how sound travels to the ear. • Identify that high pitched sounds are made by vibrations that are very quick and low pitched sounds are made by vibrations that are relatively slower. • Identify that loud sounds are made by large vibrations and quieter sounds are made by smaller vibrations.
	Summer	Plants Year 3 N.C. P.O.S.		<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 • ask relevant questions and use different types of scientific enquiries to answer them. <i>For example, pupils might work scientifically by: comparing the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser; discovering how seeds are formed by observing the different stages of plant life cycles over a period of time; looking for patterns in the structure of fruits that relate to how the seeds are dispersed. They might observe how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers.</i> 	<ul style="list-style-type: none"> • Explain the function of a plant's roots, stem/trunk, leaves and flowers. • Be able to list the requirements for plants to live and grow. • Explain different methods for seed dispersal. • Understand how flowering plants are pollinated.
		Living things and their habitats Year 4 N.C. P.O.S.		<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 • identify differences, similarities or changes related to simple scientific ideas and processes. <i>For example, pupils might work scientifically by: using and making simple guides or keys to explore and identify local plants and animals; making a guide to local living things; raising and answering questions based on their observations of animals and what they have found out about other animals that they have researched.</i> 	<ul style="list-style-type: none"> • Recognise that living things are grouped based on their observable characteristics. • Use a classification key to name living things in the locality. • Recognise how living things are connected e.g. how changes in environment can affect living things in that ecosystem.
Yr 5&6 Cycle A	Autumn	Light Year 6 N.C. P.O.S.		<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 • <i>Pupils might work scientifically by: deciding where to place rear-view mirrors on cars; designing and making a periscope and using the idea that light appears to travel in straight lines to explain how it works. They might investigate the relationship between</i> 	<ul style="list-style-type: none"> • Know that light travels in straight lines. • Know that we see things because light reflects off them into our eyes. • Recognise different light sources. • Explain why shadows have the same shape as the objects that cast them.

			Electricity Year 6 N.C. P.O.S.	<p><i>light sources, objects and shadows by using shadow puppets. They could extend their experience of light by looking a range of phenomena including rainbows, colours on soap bubbles, objects looking bent in water and coloured filters (they do not need to explain why these phenomena occur).</i></p> <ul style="list-style-type: none"> • associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit • compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches • use recognised symbols when representing a simple circuit in a diagram • use test results to make predictions to set up further comparative and fair tests. For example - <i>Pupils might work scientifically by: systematically identifying the effect of changing one component at a time in a circuit; designing and making a set of traffic lights, a burglar alarm or some other useful circuit.</i> 	<ul style="list-style-type: none"> • Know that the amount of cells used in a circuit will have an effect on the other components. • Suggest ways to make a bulb shine brighter. • Use recognised symbols when representing a simple circuit in a diagram.
	Spring	Earth and space Year 5 N.C. P.O.S.	<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 • identify scientific evidence that has been used to support or refute ideas or arguments. Pupils could examine the arguments for and against the 'flat Earth' theory, exploring and refuting the ideas. <i>Pupils might work scientifically by: comparing the time of day at different places on the Earth through internet links and direct communication; creating simple models of the solar system; constructing simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day; finding out why some people think that structures such as Stonehenge might have been used as astronomical clocks.</i> 	<ul style="list-style-type: none"> • Describe the movement of the Earth and other planets relative to the sun. • Describe the movement of the moon relative to the Earth. • Know that the Sun, Earth and Moon are roughly spherical in their shape. • Explain night and day in relation to the Earth's rotation. 	
	Summer	Living things and their habitats Year 5 and 6 N.C. P.O.S.	<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 • <i>Pupils might work scientifically by: observing and comparing the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times), asking pertinent questions and suggesting reasons for similarities and differences. They might try to grow new plants from different parts of the parent plant, for example, seeds, stem and root cuttings, tubers, bulbs. They might observe changes in an animal over a period of time (for example, by hatching and rearing chicks), comparing how different animals reproduce and grow.</i> • <i>They could also work scientifically by: using classification systems and keys to identify some animals and plants in the immediate environment. They could research unfamiliar animals and plants from a broad range of other habitats and decide where they belong in the classification system.</i> 	<ul style="list-style-type: none"> • Be able to list some of the characteristics of different groups of plants/animals/micro-organisms, e.g. mammals give birth to live young and feed their offspring milk. Birds have two wings, beaks and lay eggs. etc etc. • Group a variety of living things, explaining how they have grouped them. 	
Yr5&6 Cycle B	Autumn	Properties and changes of materials Year 5 N.C. P.O.S.	<ul style="list-style-type: none"> • compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity 	<ul style="list-style-type: none"> • Compare and group together everyday materials on the basis of their properties. 	

			<ul style="list-style-type: none"> (electrical and thermal), and response to magnets know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic demonstrate that dissolving, mixing and changes of state are reversible changes explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. For example: <i>Pupils might work scientifically by: carrying out tests to answer questions, for example, 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?' They might compare materials in order to make a switch in a circuit. They could observe and compare the changes that take place, for example, when burning different materials or baking bread or cakes. They might research and discuss how chemical changes have an impact on our lives, for example, cooking, and discuss the creative use of new materials such as polymers, super-sticky and super-thin materials.</i> 	<ul style="list-style-type: none"> Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. List some examples of irreversible changes, explaining why the change is irreversible. Demonstrate/describe a reversible change, such as dissolving.
	Spring	<p>Forces Year 5 N.C. P.O.S.</p> <p>Animals including humans Year 5 N.C. P.O.S.</p>	<ul style="list-style-type: none"> explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object identify the effects of air resistance, water resistance and friction, that act between moving surfaces recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. For example - <i>Pupils might work scientifically by: exploring falling paper cones or cup-cake cases, and designing and making a variety of parachutes and carrying out fair tests to determine which designs are the most effective. They might explore resistance in water by making and testing boats of different shapes. They might design and make products that use levers, pulleys, gears and/or springs and explore their effects.</i> describe the changes as humans develop to old age record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. For example: <i>Pupils could work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.</i> 	<ul style="list-style-type: none"> Identify gravity as the reason unsupported objects fall towards the Earth. Give examples of air resistance, water resistance or friction, explaining how the forces are working, e.g. when brakes are used on a bike, the brake pad rubs against the wheel, causing friction so the wheel slows down. Explain how a lever, pulley or gear works. Describe the changes as humans develop to old age.
	Summer	<p>Animals including humans Year 6 N.C. P.O.S.</p>	<ul style="list-style-type: none"> identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function describe the ways in which nutrients and water are transported within animals, including humans report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. For example - <i>Pupils might work scientifically by: exploring the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle</i> 	<ul style="list-style-type: none"> Describe the functions of the heart, blood vessels and blood. List a positive/negative impact of the way their body functions in relation to diet, exercise or drugs. Describe the ways in which nutrients and water are transported within animals, including humans.

			<p>Evolution and inheritance</p> <p>Year 6 N.C. P.O.S.</p>	<p><i>and health. They could conduct their own investigations into exercise and pulse rate and present their findings.</i></p> <ul style="list-style-type: none"> • recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago • recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents • identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution • <i>Pupils might work scientifically by: observing and raising questions about local animals and how they are adapted to their environment; comparing how some living things are adapted to survive in extreme conditions, for example, cactuses, penguins and camels. They might analyse the advantages and disadvantages of specific adaptations, such as being on two feet rather than four, having a long or a short beak, having gills or lungs, tendrils on climbing plants, brightly coloured and scented flowers.</i> 	<ul style="list-style-type: none"> • Explain how fossils tell us about creatures that lived 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
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Working scientifically objectives are shown in green.