

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	<p>Plants (1)</p> <p>Identify plants in the wild and garden, including deciduous and evergreen trees.</p>	<p>Animals, including Humans (1)</p> <p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals:</p> <p>observe different animals have different characteristics and they have senses that help keep them alive.</p>	<p>. Animals, including Humans (2)</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores: know that animals need a variety of food to survive, grow and repair their bodies, be active and stay healthy.</p>	<p>Materials (1)</p> <p>Distinguish between an object and the material from which it is made.</p> <p>Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock</p>	<p>Materials (2)</p> <p>Describe the simple physical properties of a variety of everyday materials.</p> <p>Compare and group everyday materials on the basis of their simple properties.</p> <p>Know that properties of a material determine whether they are suitable for a purpose.</p>	<p>Plants (2)</p> <p>Identify and describe the basic structure of flowering plants: name the roots, trunk branches and leaves of a tree.</p>
Year 2	<p>Materials (1)</p> <p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p>	<p>Materials (2)</p> <p>Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p>Animals, including Humans (1)</p> <p>Know that animals, including humans, have offspring which grow into adults.</p> <p>Find out and describe the basic needs of animals for survival (water, food and air).</p>	<p>Animals, including humans (2)</p> <p>Know the basic stages in a life cycle and the importance of exercise for humans as well as eating the right amounts of different types of food and hygiene.</p>	<p>Living things and their habitats</p> <p>Explore and compare the differences between things that are living, dead and never been alive.</p> <p>Identify that most living things live in a habitat to which they are suited and describe how these provide their basic needs, including micro habitats.</p> <p>Describe how animals obtain their food.</p>	<p>Plants</p> <p>Compare and describe the growth of different seeds and bulbs: describe how plants need water, light and warmth to grow and stay healthy.</p>
Year 3	<p>Rocks</p> <p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>Recognise that soils are made from rocks and organic matter.</p>	<p>Forces and magnets (1)</p> <p>Observe how magnets attract and repel each other and attract some materials and not others; note that magnets can work at a distance.</p> <p>Compare and group materials on the basis of whether they are attracted to a magnet and identify some magnetic materials.</p> <p>Describe magnets as having two poles and predict whether two magnets will attract or</p>	<p>Animals, including humans</p> <p>Identify that animals, including humans need to the right amount of nutrition and cannot make their own food: how nutrients, water and oxygen are transported. Identify that humans and some other animals have skeletons and muscles for support: bones support bodies and protect organs and joints connect bones.</p>	<p>Light</p> <p>Recognise that they need light in order to see things and that dark is the absence of light: light comes from a source.</p> <p>Notice that light is reflected from surfaces.</p> <p>Know that light from the Sun can be dangerous and that there are ways of protecting their eyes.</p> <p>Recognise that shadows are formed when light from a light</p>	<p>Forces and magnets (1)</p> <p>Compare how things move on different surfaces; note that some forces need contact between two objects.</p> <p>Know how a simple pulley works and make lifting an object simpler.</p>	<p>Plants</p> <p>Identify and describe the functions of different parts of a flowering plant: roots, stem/trunk/leaves and flowers including the part they play in the life cycle of plants.</p> <p>Know the way in which water is transported.</p> <p>Explain the requirements for plants to live and grow and how they vary from plant to plant.</p>

	<p>Know that there are different types of rocks and soils and that they change over time.</p> <p>Relate different types of soils to the types of plants that grow in them.</p> <p>Know that palaeontologists use fossils to find out about the past.</p>	<p>repel each other, depending on which way the poles are facing.</p>		<p>source is blocked by a solid object and find patterns in the way that the sizes of shadows change.</p>		
Year 4	<p>States of Matter</p> <p>Compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>Observe that some materials change state when heated or cooled and measure and research the temperature at which this happens in degrees Celsius.</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperatures.</p>	<p>Sound</p> <p>Know how sound is made through vibrations and what happens as a sound travels from its source to our ears.</p> <p>Know the correlation between the volume of a sound and the strength of the vibrations that produced it.</p> <p>Know the correlation between pitch and the object producing a sound.</p>	<p>Animals, including humans (1)</p> <p>Identify the different types of teeth un humans and their simple functions.</p> <p>Describe the simple functions of the basic parts of the digestive system in humans: blood takes nutrients around the body.</p>	<p>Animals, including humans (2)</p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey: know that nutrients produced by plants move to primary consumers then to secondary consumers through food chains.</p>	<p>Electricity</p> <p>Identify common appliances that run on electricity.</p> <p>Construct a simple circuit naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>Identify if a lamp will work or not based on whether or not the lamp is part of a complete loop, including the effects of a switch. Know the difference between a conductor and an insulator, giving examples.</p>	<p>Living things and their habitats</p> <p>Recognise that living things can be grouped in a variety of ways and explore how classification keys help group, identify and name a variety of living things in the local and wider environment.</p> <p>Recognise that environments can change and this can sometimes pose danger to living things.</p>
Year 5	<p>Forces (1)</p> <p>Explain that unsupported objects fall towards the Earth because of the force of gravity and the impact of gravity on our lives. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. Know that some objects require large forces to make them move; gears, pulleys and levers can reduce</p>	<p>Earth and Space</p> <p>Describe the movement of the Earth and other planets in relation to the Sun. Describe the movement of the Moon relative to the Earth. Describe the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.</p>	<p>Forces (2)</p> <p>Identify the effects of air resistance, water resistance and friction, which act on moving surfaces. Know that air resistance and water resistance are forces that act against motion caused by objects having to move air and water out of their way.</p>	<p>All living things and their habitats</p> <p>Identify and compare life cycles of different living things (mammal, amphibian, insect and bird). Know the process of reproduction in animals and plants. Know that different organisms have different life cycles.</p>	<p>Properties of materials</p> <p>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. Know that some changes can be reversed and some cannot and that materials change state by heating or cooling. Explain that some changes</p>	<p>Animals, including humans</p> <p>Describe the changes as humans develop to old age. Know that different animals mature at different rates and live to different ages.</p>

	the force needed to make things move.				result in the formation of new materials, including changes associated with burning and the action of acid on bicarbonate of soda.	
Year 6	<p style="text-align: center;">Electricity</p> <p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in a circuit. Compare and give reasons for variations in how components function, use recognised symbols when drawing circuits.</p>	<p style="text-align: center;">Living things and their habitats</p> <p>Classify living things into broad groups according to observable characteristics and give reasons. Identify similarities and differences within species.</p>	<p style="text-align: center;">Evolution and inheritance (1)</p> <p>Know about evolution and explain what it is: how fossils tell us about the past. Identify how plants and animals are adapted to their environment in different ways and that adaptation may lead to evolution.</p>	<p style="text-align: center;">Evolution and inheritance (2)</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p>	<p style="text-align: center;">Light</p> <p>Recognise that light travels in straight lines and use that knowledge to explain that objects are seen because they give out or reflect light into the eye. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. Know how simple optical instruments work, e.g. periscope, telescope, binoculars, mirror, magnifying glass etc.</p>	<p style="text-align: center;">Animals, including humans</p> <p>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 their bodies functions.</p>

Key Theme	Physics	Chemistry	Biology
Year 1	Seasonal Change	Materials	Animals, including Humans Plants
Year 2	Seasonal Change	Materials	Animals, including Humans Living things and their habitats Plants
Year 3	Forces and magnets Light		Animals, including Humans Plants Rocks
Year 4	Sound Electricity	States of matter	Animals, including Humans Living things and their habitats
Year 5	Forces Earth and Space	Materials	Animals, including Humans All living things and their habitats
Year 6	Light Electricity		Evolution and inheritance Animals, including Humans Living things and their habitats

SCIENCE PROGRESSION MAP		
Category of Knowledge	Key Stage	
Plants	KS1	<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
	LKS2	<ul style="list-style-type: none"> • Identify and describe the functions of different parts of flowering plants (roots, stem/trunk, leaves and flowers) • Explore and describe the requirement 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
Animals including Humans	KS1	<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 Identify some of the differences between different animals' observable features. • 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
	LKS2	<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
	UKS2	<ul style="list-style-type: none"> • Describe the changes as humans develop to old age • 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
Rocks	LKS2	<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

Living Things and their Habitats	KS1	<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
	LKS2	<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
	UKS2	<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
Sound	LKS2	<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
Seasonal Change	KS1	<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
Everyday Materials and Uses of Everyday Materials	KS1	<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
Electricity	LKS2	<p>LKS2</p> <ul style="list-style-type: none"> •identify common appliances that run on electricity •construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers •identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery •recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit •recognise some common conductors and insulators, and associate metals with being good conductors
	UKS2	<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

		<ul style="list-style-type: none"> position of switches •use recognised symbols when representing a simple circuit in a diagram
Forces including magnets	LKS2	<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
	UKS2	<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
Light	LKS2	<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
	UKS2	<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
States of Matter	LKS2	<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
Properties and Changes to materials	UKS2	<ul style="list-style-type: none"> •compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets •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.

Earth and Space	UKS2	<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
Evolution and Inheritance	UKS2	<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
Working Scientifically	KS1	<ul style="list-style-type: none"> • To ask simple questions and recognise that they can be answered in different ways • To observe closely, using simple equipment • To perform simple tests • To identify and classify • To use observations and ideas to suggest answers to questions
	LKS2	<ul style="list-style-type: none"> • To ask relevant questions and use different types of scientific enquiries to answer them • To set up simple practical enquiries, comparative and fair tests • To make systematic and careful observations and, where appropriate, take accurate measurements using standard units, use a range of equipment, including thermometers and data loggers • To gather, record, classify and present data in a variety of ways to help in answering questions • To record 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 • To use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • To identify differences, similarities or changes related to simple scientific ideas and processes • To use straightforward scientific evidence to answer questions
	UKS2	<ul style="list-style-type: none"> • To plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • To take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • To record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • To use test results to make predictions to set up further comparative and fair tests • To report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations • To identify scientific evidence that has been used to support or refute ideas or arguments