

## National Curriculum Coverage Key Stage 1



	National Curriculum Objectives  A1			Ye	ar 1			Year 2							
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Working Scientifically	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														
Plants	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														
Animals, including humans	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals														
Tiumans	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														
Everyday materials	Distinguish between an object and the material from which it is made														
materials	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														

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Seasonal Changes	Observe changes across the 4 seasons							
Changes	Observe and describe weather associated with the seasons and how day length varies							
Living things and their	Explore and compare the differences between things that are living, dead, and things that have never been alive							
Habitats	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							
Plants	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							
Animals, including	Notice that animals, including humans, have offspring which grow into adults							
Living things and their habitats  Plants  Animals, including humans  Uses of everyday materials	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							
everyday	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							

## National Curriculum Coverage Lower Key Stage 2 - Year 3 and 4

	National Curriculum Objectives  Asking relevant questions and using different types of scientific enquiries to answer them  KS1			Ye	ar 3			Year 4							
		A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2		
Working Scientifically	Asking relevant questions and using different types of scientific enquiries to answer them	KS1 Rev													
	Setting up simple practical enquiries, comparative and fair tests	KS1 Rev													
	Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	KS1 Rev													
	Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions	KS1 Rev													
	Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	KS1 Rev													
	Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	KS1 Rev													
	Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	KS1 Rev													
	Identifying differences, similarities or changes related to simple scientific ideas and processes	KS1 Rev													
	Using straightforward scientific evidence to answer questions or to support their findings	KS1 Rev													
Plants	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	KS1 Rev													
	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	KS1 Rev													
	Investigate the way in which water is transported within plants	KS1 Rev													
	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal	KS1 Rev													
Animals, including	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	KS1 Rev													
humans	Identify that humans and some other animals have skeletons and muscles for support, protection and movement	KS1 Rev													
Rocks	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							
Light	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							
Forces and	Compare how things move on different surfaces							
Wagnets	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							
Living things	Recognise that living things can be grouped in a variety of ways							
habitats	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							
Animals, including	Describe the simple functions of the basic parts of the digestive system in humans				Y3 Rev			
Forces and Magnets  Living things and their habitats  Animals, including humans	Identify the different types of teeth in humans and their simple functions				Y3 Rev			
	Construct and interpret a variety of food chains, identifying producers, predators and prey				Y3 Rev			
	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)							

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	Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature						
Sound	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						
Electricity	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						

## National Curriculum Coverage Upper Key Stage 2 - Year 5 and 6

	National Curriculum Objectives			Ye	ar 3			Year 4							
	National Curriculum Objectives	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2		
Working Scientifically	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary														
	Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate														
	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs														
	Using test results to make predictions to set up further comparative and fair tests														
	Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations														
	Identifying scientific evidence that has been used to support or refute ideas or arguments														
Living things and their habitats	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														
Animals, including humans	Describe the changes as humans develop to old age														
Properties and changes of materials	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														
oa.c	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	Describe the movement of the Earth and other planets relative to the sun in the solar system														
Space _	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						
Forces	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						
Living things and their habitats	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals						
	Give reasons for classifying plants and animals based on specific characteristics						
Animals, including	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood						
humans	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						
Evolution and inheritance	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						
Light	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						
Electricity	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						