

KEY STAGE ONE – YEAR ONE

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Sc2/1	Working Scientifically	TOPIC	TERM
	During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:		
Sc1/1.1	asking simple questions and recognising that they can be answered in different ways		
Sc1/1.2 & 1.3	observing closely, using simple equipment, performing simple tests		
Sc1/1.4 & 1.5	identifying and classifying, using their observations and ideas to suggest answers to questions		
Sc1/1.6	gathering and recording data to help in answering questions.		
Sc1/2.1	Plants	TOPIC	TERM
Sc1/2.1a	identify and name a variety of common wild and garden plants, including deciduous and evergreen trees		
Sc1/2.1b	identify and describe the basic structure of a variety of common flowering plants, including trees		
Sc1/2.2	Animals including humans	TOPIC	TERM
Sc1/2.2a	identify and name a variety of common animals including, fish, amphibians, reptiles, birds and mammals		
Sc1/2.2b	identify and name a variety of common animals that are carnivores, herbivores and omnivores		
Sc1/2.2c	describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)		
Sc1/2.2d	identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.		
Sc1/3.1	Everyday materials	TOPIC	TERM
Sc1/3.1a	distinguish between an object and the material from which it is made		
Sc1/3.1b	identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock		
Sc1/3.1c	describe the simple physical properties of a variety of everyday materials		
Sc1/3.1d	compare and group together a variety of everyday materials on the basis of their simple physical properties		
Sc1/4.1	Seasonal changes	TOPIC	TERM
Sc1/4.1a	observe changes across the 4 seasons		
Sc1/4.1b	observe and describe weather associated with the seasons and how day length varies		

KEY STAGE ONE – YEAR TWO

Sc2/1	Working Scientifically	TOPIC	TERM
	During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:		
Sc2/1.1	asking simple questions and recognising that they can be answered in different ways		
Sc2/1.2 & 1.3	observing closely, using simple equipment, performing simple tests		
Sc2/1.4 & 1.5	identifying and classifying, using their observations and ideas to suggest answers to questions		
Sc2/1.6	gathering and recording data to help in answering questions.		
Sc2/2.1	Living things and their habitats		
Sc2/2.1a	explore and compare the differences between things that are living, dead, and things that have never been alive	Food chains & habitats	T6
Sc2/2.1b	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	Food chains & habitats	T6
Sc2/2.1c	identify and name a variety of plants and animals in their habitats, including microhabitats	Food chains & habitats	T6
Sc2/2.1d	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.	Food chains & habitats	T6
Sc2/2.2	Plants		
Sc2/2.2a	observe and describe how seeds and bulbs grow into mature plants	Growing plants and Living Things	T3
Sc2/2.2b	find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Growing plants and Living Things	T3
Sc2/2.3	Animals including humans		
Sc2/2.3a	notice that animals, including humans, have offspring which grow into adults	Animals and offspring	T4
Sc2/2.3b	find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	Animals and offspring	T4
Sc2/2.3c	describe the importance for humans of exercise, eating the right amounts of different types of food,	Animals and	T4

	and hygiene.	offspring	
Sc2/3.1	Uses of everyday materials		
Sc2/3.1a	identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for different uses	Everyday materials	T1
Sc2/3.1b	compare how things move on different surfaces.	How things move	T2
Sc2/3.1c	find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	Everyday materials	T1

LOWER KEY STAGE TWO – YEAR THREE

LOWER KEY STAGE TWO – YEAR THREE			
Sc3/1	Working Scientifically	TOPIC	TERM
	During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:		
Sc3/1.1	asking relevant questions and using different types of scientific enquiries to answer them		
Sc3/1.2	setting up simple practical enquiries, comparative and fair tests		
Sc3/1.3	making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers		
Sc3/1.4	gathering, recording, classifying and presenting data in a variety of ways to help in answering questions		
Sc3/1.5	recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables		
Sc3/1.6	reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions		
Sc3/1.7	using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions		
Sc3/1.8	identifying differences, similarities or changes related to simple scientific ideas and processes		
Sc3/1.9	using straightforward scientific evidence to answer questions or to support their findings.		
Sc3/2.1	Plants	TOPIC	TERM
Sc3/2.1a	identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers		
Sc3/2.1b	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		
Sc3/2.1c	investigate the way in which water is transported within plants		
Sc3/2.1d	explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.		
Sc3/2.2	Animals including humans	TOPIC	TERM
Sc3/2.2a	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		
Sc3/2.2b	identify that humans and some other animals have skeletons and muscles for support, protection and movement.		

Sc3/3.1	Rocks	TOPIC	TERM
Sc3/3.1a	compare and group together different kinds of rocks on the basis of their appearance and simple physical properties		
Sc3/3.1b	describe in simple terms how fossils are formed when things that have lived are trapped within rock		
Sc3/3.1c	recognise that soils are made from rocks and organic matter.		
Sc3/4.1	Light	TOPIC	TERM
Sc3/4.1a	recognise that they need light in order to see things and that dark is the absence of light		
Sc3/4.1b	notice that light is reflected from surfaces		
Sc3/4.1c	recognise that light from the sun can be dangerous and that there are ways to protect their eyes		
Sc3/4.1d	recognise that shadows are formed when the light from a light source is blocked by a solid object		
Sc3/4.1e	find patterns in the way that the size of shadows change.		
Sc3/4.2	Forces and Magnets	TOPIC	TERM
Sc3/4.2a	compare how things move on different surfaces		
Sc3/4.2b	notice that some forces need contact between 2 objects, but magnetic forces can act at a distance		
Sc3/4.2c	observe how magnets attract or repel each other and attract some materials and not others		
Sc3/4.2d	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		
Sc3/4.2e	describe magnets as having 2 poles		
Sc3/4.2f	predict whether 2 magnets will attract or repel each other, depending on which poles are facing.		

LOWER KEY STAGE TWO – YEAR FOUR

LOWER KEY STAGE TWO – YEAR FOUR			
Sc4/1	Working Scientifically	TOPIC	TERM
	During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:		
Sc4/1.1	asking relevant questions and using different types of scientific enquiries to answer them		
Sc4/1.2	setting up simple practical enquiries, comparative and fair tests		
Sc4/1.3	making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers		
Sc4/1.4	gathering, recording, classifying and presenting data in a variety of ways to help in answering questions		
Sc4/1.5	recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables		
Sc4/1.6	reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions		
Sc4/1.7	using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions		
Sc4/1.8	identifying differences, similarities or changes related to simple scientific ideas and processes		
Sc4/1.9	using straightforward scientific evidence to answer questions or to support their findings.		
Sc4/2.1	All Living Things	TOPIC	TERM
Sc4/2.1a	recognise that living things can be grouped in a variety of ways		
Sc4/2.1b	explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment		
Sc4/2.1c	recognise that environments can change and that this can sometimes pose dangers to living things.		
Sc4/2.2	Animals including humans	TOPIC	TERM
Sc4/2.2a	describe the simple functions of the basic parts of the digestive system in humans		

Sc4/2.2b	identify the different types of teeth in humans and their simple functions		
Sc4/2.2c	construct and interpret a variety of food chains, identifying producers, predators and prey.		
Sc4/3.1	States of Matter	TOPIC	TERM
Sc4/3.1a	compare and group materials together, according to whether they are solids, liquids or gases		
Sc4/3.1b	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)		
Sc4/3.1c	identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.		
Sc4/4.1	Sound	TOPIC	TERM
Sc4/4.1a	identify how sounds are made, associating some of them with something vibrating		
Sc4/4.1b	recognise that vibrations from sounds travel through a medium to the ear		
Sc4/4.1c	find patterns between the pitch of a sound and features of the object that produced it		
Sc4/4.1d	find patterns between the volume of a sound and the strength of the vibrations that produced it.		
Sc4/4.1e	recognise that sounds get fainter as the distance from the sound source increases		
Sc4/4.2	Electricity	TOPIC	TERM
Sc4/4.2a	identify common appliances that run on electricity		
Sc4/4.2b	construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers		
Sc4/4.2c	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		
Sc4/4.2d	recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit		
Sc4/4.2e	recognise some common conductors and insulators, and associate metals with being good conductors.		

UPPER KEY STAGE TWO – YEAR FIVE

Sc5/1	Working Scientifically	TOPIC	TERM
	During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:		
Sc5/1.1	planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary		
Sc5/1.2	taking measurements, using a range of scientific equipment, with increasing accuracy and precision		
Sc5/1.3	recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs		
Sc5/1.4	using test results to make predictions to set up further comparative and fair tests		
Sc5/1.5	reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations		
Sc5/1.6	identifying scientific evidence that has been used to support or refute ideas or arguments.		
Sc5/2.1	Living Things and their habitats	TOPIC	TERM
Sc5/2.1a	describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird		
Sc5/2.1b	describe the life process of reproduction in some plants and animals.		
Sc5/2.2	Animals, including humans	TOPIC	TERM
Sc5/2.2a	describe the changes as humans develop to old age.		
Sc5/3.1	Properties and Changes of Materials	TOPIC	TERM
Sc5/3.1a	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		
Sc5/3.1b	know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution		
Sc5/3.1c	use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating		
Sc5/3.1d	give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic		
Sc5/3.1e	demonstrate that dissolving, mixing and changes of state are reversible changes		
Sc5/3.1f	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.		

Sc5/4.1	Earth and Space	TOPIC	TERM
Sc5/4.1a	describe the movement of the Earth, and other planets, relative to the Sun in the solar system		
Sc5/4.1b	describe the movement of the Moon relative to the Earth		
Sc5/4.1c	describe the Sun, Earth and Moon as approximately spherical bodies		
Sc5/4.1d	use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky.		
Sc5/4.2	Forces	TOPIC	TERM
Sc5/4.2a	explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object		
Sc5/4.2b	identify the effects of air resistance, water resistance and friction, that act between moving surfaces		
Sc5/4.2c	recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect		

UPPER KEY STAGE TWO – YEAR SIX

UPPER KEY STAGE TWO – YEAR SIX			
Sc6/1	Working Scientifically	TOPIC	TERM
Sc6/1.1	planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary		
Sc6/1.2	taking measurements, using a range of scientific equipment, with increasing accuracy and precision		
Sc6/1.3	recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs		
Sc6/1.4	using test results to make predictions to set up further comparative and fair tests		
Sc6/1.5	using simple models to describe scientific ideas		
Sc6/1.6	reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations		
Sc6/1.7	identifying scientific evidence that has been used to support or refute ideas or arguments.		
Sc6/2.1	Living Things and their habitats	TOPIC	TERM
Sc6/2.1a	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		
Sc6/2.1b	give reasons for classifying plants and animals based on specific characteristics.		
Sc6/2.2	Animals including humans	TOPIC	TERM
Sc6/2.2a	identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood		
Sc6/2.2b	recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function		
Sc6/2.2c	describe the ways in which nutrients and water are transported within animals, including humans.		
Sc6/2.3	Evolution	TOPIC	TERM
Sc6/2.3a	recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago		
Sc6/3.2b	recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents		
Sc6/2.3c	identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.		

Sc6/4.1	Light	TOPIC	TERM
Sc6/4.1a	recognise that light appears to travel in straight lines		
Sc6/4.1b	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		
Sc6/4.1c	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		
Sc6/4.1d	use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them		
Sc6/4.2	Electricity	TOPIC	TERM
Sc6/4.2a	associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit		
Sc6/4.2b	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		
Sc6/4.2c	use recognised symbols when representing a simple circuit in a diagram.		