

KEY STAGE 1 – SCIENCE CURRICULUM

Year 1 & 2	Year 1			
Working Scientifically	Plants	Animals, including humans	Everyday materials	Seasonal changes
Asking simple questions and recognising that they can be answered in different ways	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals	Distinguish between an object and the material from which it is made	Observe changes across the four seasons
Observing closely, using simple equipment	Identify and describe the basic structure of a variety of common flowering plants, including trees	Identify and name a variety of common animals that are carnivores, herbivores and omnivores	Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock	Observe and describe weather associated with the seasons and how day length varies
Performing simple tests		Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)	Describe the simple physical properties of a variety of everyday materials	
Identifying and classifying		Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	Compare and group together a variety of everyday materials on the basis of their simple physical properties	
Using their observations and ideas to suggest answers to questions				
Gathering and recording data to help in answering questions.				
	Year 2			
	Plants	Animals including humans	Uses of everyday materials	Living things and their habitats
	Observe and describe how seeds and bulbs grow into mature plants	Notice that animals, including humans, have offspring which grow into adults	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	Explore and compare the differences between things that are living, dead and things that have never been alive
	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	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
		Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene		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

KEY STAGE 2 – SCIENCE CURRICULUM

Animals including humans	Plants	Living things and their habitats	Rocks	Light	Forces and magnets	States of matter	Sound	Electricity
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 and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	Recognise that living things can be grouped in a variety of ways	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	Recognise that they need light in order to see things and dark is the absence of light	Compare how things move on different surfaces	Compare and group materials together, according to whether they are solids, liquids or gases	Identify how sounds are made, associating some of them with something vibrating	Identify common appliances that run on electricity
Identify that humans and some other animals have skeletons and muscles for support, protection and movement	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	Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	Describe in simple terms how fossils are formed when things that have lived are trapped within rock	Notice that light is reflected from surfaces	Notice that some forces need contact between two objects but magnetic forces can act at a distance	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)	Recognise that vibrations from sounds travel through a medium to the ear	Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
Describe the simple functions of the basic parts of the digestive system in humans	Investigate the way in which water is transported within plants	Recognise that environments can change and that this can sometimes pose dangers to living things	Recognise that soils are made from rocks and organic matter	Recognise that light from the sun can be dangerous and that there are ways to protect their eyes	Observe how magnets attract or repel each other and attract some materials and not others	Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	Find patterns between the volume of a sound and the strength of the vibrations that produced it	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
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	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	Earth and space	Recognise that shadows are formed when the light from a light source is blocked by a solid object	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	Properties and changes of materials	Recognise that sounds get fainter as the distance from the sound source increases	Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
						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		
Describe the changes as humans develop to old age	Evolution and inheritance	Describe the life processes of reproduction in some plants and animals	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system	Recognise that light appears to travel in straight lines	Describe magnets as having two poles	Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.	Identify how sounds are made, associating some of them with something vibrating	Recognise some common conductors and insulators and associate metals with being good conductors
Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	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	Describe the movement of the Moon relative to the Earth	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	Predict whether two magnets will attract or repel each other, depending on which poles are facing	Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.		Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	Give reasons for classifying plants and animals based on specific characteristics	Describe the Sun, Earth and Moon as approximately spherical bodies	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	Forces	Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic		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
Describe the ways in which nutrients and water are transported within animals, including humans	Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution	Key	Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky	Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them	Identify the effects of air resistance, water resistance and friction that act between moving surfaces	Demonstrate that dissolving, mixing and changes of state are reversible changes		Use recognised symbols when representing a simple circuit in a diagram
		Year 3						
		Year 4						
		Year 5						
					Recognise that some mechanisms, including levers, pulleys and gears allow a smaller force to have a greater effect	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 soda		