	Skill
EYFS	<u>Exploring and using materials</u> ⭐ Manipulating materials to achieve a planned effect ⭐ Safely using and exploring a variety of materials, tools and techniques
Year 1 **Year 2**	<u>Asking questions</u> ⭐ Asking simple questions and recognising that they can be answered in different ways <u>Measuring and recording</u> ⭐ Observing closely, using simple equipment and performing simple tests ⭐ Gathering and recording data to help in answering questions <u>Concluding</u> ⭐ Identifying and classifying ⭐ Using observations and ideas to suggest answers to questions
Year 3 **Year 4**	<u>Asking questions</u> ⭐ Asking relevant questions and using different types of scientific enquiries to answer them by setting up simple practical enquiries, comparative and fair tests <u>Measuring and recording</u> ⭐ Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers ⭐ Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables ⭐ Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions <u>Concluding</u> ⭐ Identifying differences, similarities or changes related to simple scientific ideas and processes ⭐ Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions ⭐ Using straightforward scientific evidence to answer questions or to support their findings <u>Evaluating</u> ⭐ Using results to draw simple conclusions, making predictions for new values, suggesting improvements and raising further questions
Year 5 **Year 6**	<u>Asking questions</u> ⭐ Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary <u>Measuring and recording</u> ⭐ 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 <u>Concluding</u> ⭐ Identifying scientific evidence that has been used to support or refute ideas or arguments ⭐ Reporting and presenting 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 <u>Evaluating</u> ⭐ Using test results to make predictions to set up further comparative and fair tests

	Knowledge	
EYFS	The World ⭐ Developing an understanding of growth, decay and changes over time ⭐ Discussing things observed such as plants, animals, natural and found objects ⭐ Noticing detailed features of objects in the environment ⭐ Knowing about similarities and differences in relation to places, objects, materials and living things ⭐ Making observations of animals and plants and explaining why some things occur ⭐ Talking about the features of immediate environment and how environments might vary	
Year 1 **Year 2**	Plants ⭐ Identifying and naming common animals that are carnivores, herbivores and omnivores ⭐ Identifying and naming common wild and garden plants, including deciduous and evergreen trees ⭐ Identifying and describing the basic structure of common flowering plants, including trees ⭐ Finding out and describe what plants need to grow and stay healthy ⭐ Observing and describing how seeds and bulbs grow into mature plants Animals including Humans ⭐ Identifying and naming a variety of common animals ⭐ Noticing that animals, including humans, have offspring which grow into adults ⭐ Describing and comparing the structure of a variety of common animals ⭐ Identifying, naming, drawing and labelling the basic parts of the human body and say which part of the body is associated with each sense ⭐ Finding out about and describing the basic needs of animals, including humans, for survival ⭐ Describing the importance for humans of exercise, eating the right amounts of different types of food, and hygiene Seasons ⭐ Observing changes across the four seasons ⭐ Observing and describing weather associated with the seasons and how day length varies	Living things and their habitats ⭐ Exploring and comparing the difference between things that are living, dead, and things that have never been alive ⭐ Identifying that most living things live in habitats to which they are suited and describing how different habitats provide the basic needs of different kinds of animals and plants, and how they depend on each other ⭐ Identifying and naming a variety of plants and animals in their habitats, including micro-habitats ⭐ Describing how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identifying and naming different sources of food ⭐ Materials ⭐ Distinguishing between objects and materials, describing, comparing and sorting according to properties ⭐ Learning the uses of different materials, thinking about how their properties make them suitable or not such as exploring fireproof materials when learning from the Great Fire of London
Year 3 **Year 4**	Forces and Magnets ⭐ Comparing how things move on different surfaces ⭐ Noticing that some forces need contact between two objects, but magnetic forces can act at a distance ⭐ Observing how magnets attract or repel each other and attract some materials and not others ⭐ Comparing and grouping together a variety of everyday materials on the basis on whether they are attracted to a magnet, and identify some magnetic materials ⭐ Describing magnets as having two poles ⭐ Predicting whether two magnets will attract or repel each other, depending on which poles are facing	Animals including Humans ⭐ Identifying 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 ⭐ Identifying that humans and some other animals have skeletons and muscles for support, protection and movement ⭐ Describing the simple functions of the basic parts of the digestive system in humans ⭐ Identifying the different types of teeth in humans and their simple functions ⭐ Constructing and interpreting a variety of food chains, identifying producers, predators and prey ⭐

	Knowledge	
Year 3 **Year 4**	<u>Sound</u> ⭐ Identifying how sounds are made, associating some of them with something vibrating ⭐ Recognising that vibrations from sounds travel through a medium to the ear ⭐ Finding patterns between the pitch of a sound and features of the object that produced it ⭐ Finding patterns between the volume of a sound and the strength of the vibrations that produced it ⭐ Recognising that sounds get fainter as the distance from the sound source increases <u>Electricity</u> ⭐ Identifying common appliances that run on electricity ⭐ Constructing a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers ⭐ Identifying 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 ⭐ Recognising that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit ⭐ Recognising some common conductors and insulators, and associate metals with being good conductors <u>Plants</u> ⭐ Identifying and describing the functions of different parts of flowering plants ⭐ Exploring the requirements of plants for life and growth ⭐ Investigating the way in which water is transported within plants ⭐ Exploring the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal	<u>Light</u> ⭐ Recognising that they need light in order to see things and that the dark is the absence of light ⭐ Noticing that light is reflected from surfaces ⭐ Recognising that light from the sun can be dangerous and that there are ways to protect their eyes ⭐ Recognising shadows are formed when the light from a light source is blocked by a solid object ⭐ Finding patterns in the way that the size of shadows changes <u>Materials</u> ⭐ Comparing and grouping materials together, according to whether they are solids, liquids or gases ⭐ Observing 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) ⭐ Identifying the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature <u>Living things and their habitats</u> ⭐ Recognising that living things can be grouped in a variety of ways ⭐ Exploring and using classification keys to help group, identify and name a variety of living things in their local and wider environment ⭐ Recognising that environments change and that this can sometimes pose dangers to living things
Year 5 **Year 6**	<u>Animals including Humans</u> ⭐ Describing the changes as humans develop to old age ⭐ Identifying and naming the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood ⭐ Recognising the impact of diet, exercise, drugs and lifestyle on the way their bodies function ⭐ Describing the ways in which nutrients and water are transported within animals, including humans <u>Living things and their habitats</u> ⭐ Describing the differences in the life cycles of a mammal, an amphibian, an insect and a bird ⭐ Describing the life process of reproduction in some plants and animals ⭐ Describing 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 ⭐ Giving reasons for classifying plants and animals based on specific characteristics	<u>Light</u> ⭐ Recognising that light appears to travel in straight lines ⭐ Using the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye ⭐ Explaining that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes ⭐ Using the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them <u>Electricity</u> ⭐ Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit ⭐ Comparing 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 ⭐ Using recognised symbols when representing a simple circuit in a diagram]

	Knowledge	
Year 5 **Year 6**	<u>Evolution and inheritance</u> ⭐ Recognising that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago ⭐ Recognising that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents ⭐ Identifying how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution <u>Earth and space</u> ⭐ Describing the movement of the Earth, and other planets, relative to the Sun ⭐ Describing the movement of the Moon relative to the Earth ⭐ Describing the Sun, Earth and Moon as approximately spherical bodies ⭐ Using the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky <u>Forces and Magnets</u> ⭐ Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object ⭐ Identifying the effects of air resistance, water resistance and friction, that act between moving surfaces ⭐ Recognising that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect	<u>Materials</u> Properties and Changes ⭐ Comparing and grouping 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 ⭐ Using knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating ⭐ Giving reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic ⭐ Demonstrating that dissolving, mixing and changes of state are reversible changes ⭐ Explaining 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