

	EYFS	Year 1	Year 2	Year 3	Year 4
Make observations	<p>(The Natural World) Explore the natural world around them, making observations and drawing pictures of animals and plants</p> <p>- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class</p> <p>- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</p>	Start to observe closely	Observe closely	Develop skills of systematic observation	Make systematic observations
Perform Tests	<p>(Self Regulation) Set and work towards simple goals, being able to wait for what they want and control their immediate impulses when appropriate;</p> <p>(The Natural World) Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	Perform simple tests with support	Perform simple tests	Set up simple practical enquiries Understand comparative and fair tests	<p>Suggest, set up and carry out simple practical enquiries</p> <p>Understand comparative and fair tests</p>
Ask questions	<p>(Listening, Attention and Understanding) Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to a</p> <p>- Make comments about what they have heard and ask questions to clarify their understanding</p> <p>(Speaking) Offer explanations for why things might happen, making use of recently introduced vocabulary</p>	<p>Start to ask and suggest answers to simple scientific questions</p> <p>Use first-hand practical experiences to find answers</p>	<p>Ask and raise their own scientific questions</p> <p>Use first-hand practical experiences to find answers</p>	<p>Ask relevant scientific questions and suggest how to answer eg <i>practical test vs secondary sources</i></p> <p>Develop different types of scientific enquiry</p>	<p>Generate and answer scientific questions using evidence</p> <p>Select most appropriate type of scientific enquiry</p>
Gather data		Begin to gather and record data simply using pictures and words	Gather and record data using diagrams, words and charts	<p>Gather, record and present data in variety of ways eg drawings, labelled diagrams, charts</p> <p>Report on findings orally and in writing using scientific language</p>	<p>Gather, record, classify and present data in a wide variety of ways eg <i>drawings, labelled diagrams, charts</i></p> <p>Report on findings orally and in writing using scientific language to answer questions</p>
Analyse data		Start to discuss what they have found out	Discuss what they have found out	<p>Use results to draw simple conclusions and make predictions</p> <p>Identify similarities, differences, changes related to scientific processes and ideas</p>	<p>Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions</p> <p>Explain similarities, differences, changes related to scientific processes and ideas</p>
Use equipment	(The Natural World) Explore the natural world around them, making observations and drawing pictures of animals and plants	Begin to use simple equipment eg <i>egg timers, hand lenses</i>	Use simple equipment eg <i>hand lenses, egg timers</i>	Use range of equipment to measure accurately eg <i>dataloggers, thermometers</i>	Confidently use range of equipment to measure accurately eg <i>dataloggers, thermometers</i>

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Knowledge		<p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Animals, including humans)</p> <p>Group animals according to what they eat. (Animals, including humans)</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Animals, including humans)</p> <p>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Animals, including humans)</p> <p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Animals, including humans)</p>	<p>Understand that animals, including humans, have offspring which grow into adults. (Animals, including humans)</p> <p>Describe the basic needs of animals, including humans, for survival (water, food and air). (Animals, including humans)</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Animals, including humans)</p>	<p>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. (Animals, including humans)</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement. (Animals, including humans)</p>	<p>Describe the simple functions of the basic parts of the digestive system in humans. (Animals, including humans)</p> <p>Identify the different types of teeth in humans and their simple functions. (Animals, including humans)</p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey. (Animals, including humans)</p>
Knowledge	<p>Explores the natural world around him/her. (The Natural World)</p> <p>Describes what he/she can see, hear and feel whilst outside. (The Natural World)</p> <p>Recognises some environments that are different to the one in which he/she lives. (The Natural World)</p> <p>Understands the effect of changing seasons on the natural world around him/her. (The Natural World)</p> <p>Explores the natural world around him/her, making observations and drawing pictures of animals and plants (ELG). (The Natural World)</p>	<p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Plants)</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees. (Plants)</p>	<p>Observe and describe how seeds and bulbs grow into mature plants. (Plants)</p> <p>Describe how plants need water, light and a suitable temperature to grow and stay healthy, and describe the impact of changing these. (Plants)</p>	<p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Plants)</p> <p>Explore and describe 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. (Plants)</p> <p>Investigate the way in which water is transported within plants. (Plants)</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Plants)</p>	
Knowledge	<p>Knows some similarities and differences between the natural world around him/her and contrasting environments, drawing on his/her experiences and what has been read in class (ELG). (The Natural World)</p> <p>Understands some important processes and changes in the natural world around him/her, including the seasons and changing states of matter (ELG). (The Natural World)</p>		<p>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. (Living things and their habitats)</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats. (Living things and their habitats)</p> <p>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. (Living things and their habitats)</p>		<p>Recognise that living things can be grouped in a variety of ways. (Living things and their habitats)</p> <p>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. (Living things and their habitats)</p> <p>Recognise that environments can change and that this can sometimes pose dangers and have an impact on living things. (Living things and their habitats)</p>
Knowledge		<p>Distinguish between an object and the material from which it is made. (Materials)</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Materials)</p> <p>Describe the simple physical properties of a variety of everyday materials. (Materials)</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Materials)</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. (Materials)</p> <p>Describe how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Materials)</p>		

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Knowledge				<p>Compare how things move on different surfaces. (Forces and magnets)</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance. (Forces and magnets)</p> <p>Observe how magnets attract or repel each other and attract some materials and not others. (Forces and magnets)</p> <p>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. (Forces and magnets)</p> <p>Describe magnets as having two poles. (Forces and magnets)</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing. (Forces and magnets)</p> <p>Recognise that he/she needs light in order to see things and that dark is the absence of light. (Light)</p> <p>Notice that light is reflected from surfaces. (Light)</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect eyes. (Light)</p> <p>Recognise that shadows are formed when the light from a light source is blocked by a solid object. (Light)</p> <p>Find patterns in the way that the size of shadows change. (Light)</p>	
Knowledge				<p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (Rocks)</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock. (Rocks)</p> <p>Recognise that soils are made from rocks and organic matter. (Rocks)</p>	
Knowledge		<p>Observe changes across the four seasons. (Seasonal changes)</p> <p>Observe and describe weather associated with the seasons and how day length varies. (Seasonal changes)</p>			

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Knowledge					<p>Identify how sounds are made, associating some of them with something vibrating. (Sound)</p> <p>Recognise that vibrations from sounds travel through a medium to the ear. (Sound)</p> <p>Find patterns between the pitch of a sound and features of the object that produced it. (Sound)</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it. (Sound)</p> <p>Recognise that sounds get fainter as the distance from the sound source increases. (Sound)</p>
Knowledge	Understands some important processes and changes in the natural world around him/her, including the seasons and changing states of matter (ELG). (The Natural World)				<p>Compare and group materials together, according to whether they are solids, liquids or gases. (States of matter)</p> <p>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). (States of matter)</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. (States of matter)</p>
Knowledge					<p>Identify common appliances that run on electricity. (Electricity)</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. (Electricity)</p> <p>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. (Electricity)</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. (Electricity)</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors. (Electricity)</p>