

	Statutory Requirements	Working Scientifically non-statutory	Vocabulary
<p>Year 3</p> <p>Working scientifically</p>	<ul style="list-style-type: none"> • 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: • Asking relevant questions and using different types of scientific enquiries to answer them • Setting up simple practical enquiries, comparative and fair tests • Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • Identifying differences, similarities or changes related to simple scientific ideas and processes 	<p>Classifying</p> <p>Observing over time</p> <p>Pattern seeking</p> <p>Research</p> <p>Comparative/fair testing</p>	

	using straightforward scientific evidence to answer questions or to support their findings.		
Forces including magnets	<ul style="list-style-type: none"> • Compare how things move on different surfaces • Notice that some forces need contact between two 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 two poles. • Predict whether two magnets will attract or repel each other, depending on which poles are facing. 	<p>Comparative/fair testing Carrying out tests to find out how far things move on different surfaces and gathering and recording data to find answers their questions.</p> <p>Classifying Comparing how different things move, grouping them and raising questions. Sorting materials into those that are magnetic and those that are not</p> <p>Comparative/fair testing Exploring the strengths of different magnets and finding a fair way to compare them.</p> <p>Observing over time Looking for patterns in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another. Identifying how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.</p>	<p>Revision energy, matter, property, wave, metal, material, surface, friction, force, stretch, squash, rough, smooth</p> <p>New vocabulary magnetic, non-magnetic, pole, north, south, sliding friction, static friction, elastic, resist, attraction, repulsion</p>
Rocks	<ul style="list-style-type: none"> • 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. 	<p>Observing over time Observing rocks, including those used in buildings and gravestones, and exploring how and why they might have changed over time.</p> <p>Classifying Using a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them.</p>	<p>Revision Decay, matter, melting, material, Rock is a type of solid material.</p> <p>New vocabulary extinction, igneous, metamorphic, sedimentary,</p>

		<p>Research Research and discuss the different kinds of living things whose fossils are found in Sedimentary rock and explore how fossils are formed.</p> <p>Comparative/fair testing To explore different soils and identify similarities and differences between them and investigate what happens when rocks are rubbed together or what changes occur when they are in water. They can raise and answer questions about the way soils are formed.</p>	<p>paleontologist, weathering, molten rock, crust, tectonic plates, scavengers, fossil</p>
Plants	<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers 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 Investigate the way in which water is transported within plants Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 	<p>Comparative/fair testing Comparing the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser.</p> <p>Observing over time Discover how seeds are formed by observing the different stages of plant life cycles over a period of time.</p> <p>Pattern seeking Looking for patterns in the structure of fruits that relate to how the seeds are dispersed.</p> <p>Observing They might observe how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers.</p>	<p>Revision component, energy, growth, habitat, reproduction, decay, offspring, adult, bulb, seed, survival, temperature nutrients, consumption, deciduous, evergreen, flower, plant, tree, structure, roots, stem, leaf, trunk, flower,</p> <p>New vocabulary extinction, fruit, nectar, anther, ovary, ovule, petal, pollen, stigma, style, stamen, function, exchange, dispersal, fertilization, vitamin,</p>

<p>Animals including humans</p>	<ul style="list-style-type: none"> 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 that humans and some other animals have skeletons and muscles for support, protection and movement. 	<p>Classifying Identify and group animals with and without skeletons and observing and comparing their movement.</p> <p>Decide ways of grouping animals according to their diets.</p> <p>Comparative/fair testing They might compare and contrast the diets of different animals (including their pets).</p> <p>Research Research different food groups and how they keep us healthy and design meals based on what they find out. Explore ideas about what would happen if humans did not have skeletons.</p>	<p>Revision component, energy, growth, habitat, reproduction, decay, offspring, adult, nutrients, consumption, vertebrate, skeleton</p> <p>New vocabulary extinction, vitamin, balanced diet, cartilage, invertebrate, contract, loosen, ribcage, insect</p>
<p>Light</p>	<ul style="list-style-type: none"> 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. 	<p>Pattern seeking & Observing</p> <p>To look for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.</p>	<p>Revision absorption, energy, property, reflection</p> <p>New vocabulary wave, mirror, incident ray, image, beam, photons, solid, opaque, transparent, object, source, data logger</p>

