



Science Year 3 and 4	Autumn	Spring	Summer
<p>Scientific Enquiry Objectives</p> <ul style="list-style-type: none"> ask relevant questions and using different types of scientific enquiries to answer them set simple practical enquiries, comparative and fair tests make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers gather, record, classify and present data in a variety of ways to help in answering questions record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions 	<p>Cycle A</p> <p>Sound Children will look at how sounds are made and know it is caused by an something vibrating. Children will know that we hear sound by the vibrations travelling into our ears. Children will use the words pitch and volume correctly to describe a sound and will carry out their own investigations to find out what happens to a sound as the distance from the source changes. Children will use data loggers to measure and record sound in dB.</p> <p>Rocks and Fossils Children will explore a range of rock types and compare/ sort these in different ways. Children will know that fossils are formed through living things become trapped inside rocks. Children will recognise how soils are made.</p>	<p>Animals including Humans Children will explore different animals, understanding that we require different diets and nutrition. Children will construct and interpret food chains learning specific vocabulary around this.</p> <p>Children will learn about their teeth, how to keep them healthy and use scientific enquiry to explore this further through experiments with egg shells and different liquids. Children will also explore different toothpastes and through recording their findings, make an informed choice which is best for our teeth.</p> <p>Children will become familiar with the human body, including the digestive system and explain how food moves through the body .</p>	<p>States of Matter Children will compare and group materials together, according to whether they are solids, liquids or gases. Through experiments and observations children will see how some materials change state when they are heated and cooled. Using data loggers and thermometers children will measure or research the temperature at which this happens in degrees Celsius.</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>



<ul style="list-style-type: none">Identify differences, similarities or changes related to simple scientific ideas and processes using straightforward scientific evidence to answer questions or to their findings.	<p>Cycle B</p> <p>Electricity Children will recognise where we use electricity within our daily lives. Children will explore simple circuits identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Children will solve simple problems involving circuits by completing a loop with a battery. Children will use switches to create more complicated circuits. Children will use the terms conductor and insulator correctly, identifying examples of each.</p> <p>Light Children will understand that they need light to see and that dark is the absence of light. Children will recognise that we see objects through light reflecting from the. Children will explore how shadows are formed and use this knowledge to create their own shadow puppets. Children will understand that the sun can be dangerous and recognise the need to care for our eyes. Children will use vocabulary opaque, translucent and transparent correctly.</p>	<p>Forces and Magnets Children will compare how things move on different surfaces and understand the effect of friction. Children will explore magnets and notice that some will attract and some repel dependent on the poles. Children will sort metals into magnetic and non-magnetic through simple investigations. Children will use their knowledge to create a simple magnetic game.</p>	<p>Plants Children will Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. They will 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 and use this to grow their own plants from seeds. They will plan and conduct their own investigations regarding the best position in the classroom to grow a plant, incorporating fair testing. Children will investigate the way in which water is transported within plants through coloured water and cut flowers. Through practical activities children will explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>
--	--	--	--