



Curriculum Overview

Subject: Science

Year 1	<p><u>Autumn</u> Plants and Animals: Identifying common plants, naming the parts of plants, naming a variety of animals and their structure, identifying carnivores, herbivores and omnivores. Seasons: observing changes across the four seasons. Materials: distinguishing between an object and the material from which it is made.</p> <p><u>Spring</u> Plants and animals: Drawing and labelling the human body and exploring senses. Materials: naming a variety of common materials and describing their properties.</p> <p><u>Summer</u> Plants and animals: drawing the parts of plants including trees. Materials: comparing and grouping everyday materials. Seasons: observing day length and weather with seasonal change.</p> <p><u>All terms</u> Working scientifically: observing, using simple equipment, performing simple tests, identifying and classifying, gathering and recording data.</p>
Year 2	<p><u>Animals including humans</u> Life cycles, describing the basic needs of animals including humans, recognising the importance of exercise, eating a balanced diet and good hygiene.</p> <p><u>Living things and their habitats</u> Exploring and comparing things that are living, dead and have never been alive. Identifying how living things live in habitats that provide for their basic needs. Naming plants and animals in their habitats including micro-habitats. Using food chains to describe how animals obtain their food from plants and other animals.</p> <p><u>Plants</u> Observing seeds and bulbs growing into mature plants. Finding out what plants need to grow and stay healthy.</p> <p><u>Materials</u> Choosing a variety of everyday materials for particular uses. Finding how shapes of solid objects made from some materials can be changed.</p> <p><u>All terms</u></p>

	<p>Working scientifically: observing closely, using simple equipment. Performing simple tests, identifying and classifying, gathering and recording data. Raising own questions and developing use of simple scientific language.</p>
Year 3	<p><u>Animals including humans: Nutrition, teeth and their functions</u> Identify the different types of teeth in humans and their simple functions. 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.</p> <p><u>Forces and magnets</u> 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.</p> <p><u>Rocks, soils and fossils</u> 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> <p><u>Light and shadows</u> 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 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> <p><u>Investigating plants</u> 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>

Year 4	<p><u>Sound</u> Set up simple enquiries & fair tests, use results to draw simple conclusions.</p> <p><u>Living Things in their habitats</u> Use secondary sources to answer questions & record data in a variety of ways.</p> <p><u>States of matter</u> Make systematic observations, take accurate measurements & identify differences & similarities.</p> <p><u>Animals including humans</u> Use straightforward scientific evidence & language to ask & answer questions & write explanations.</p> <p><u>Electricity</u> Use a range of equipment to set up fair tests and use data to raise further questions.</p>
Year 5	<p><u>Working scientifically</u> By raising questions and planning scientific enquiries to answer these, recognising and controlling variables; taking measurements, using a range of scientific equipment with increasing accuracy and precision; taking repeat readings when appropriate; recording data and results using scientific diagrams and graphs; reporting and presenting findings from enquiries, including conclusions, and explanations of results.</p> <p><u>Living things and their Habitats</u> Researching life-cycles of plants and animals; knowing the life cycle of a flowering plant; describing the life process of reproduction in plants; identifying the best conditions for germination; describing the differences in the life cycles of a mammal, amphibian, insect and bird; discussing the main stages and changes in the human life cycle.</p> <p><u>Properties and Changes of Materials</u> Comparing and grouping materials on the basis of their properties; giving reasons for the particular uses of materials; describing how mixtures might be separated; knowing that liquids evaporate under certain conditions; identifying reversible and irreversible reactions; understanding that melting, freezing, evaporation and condensation are reversible changes; explaining the main stages in the water cycle.</p> <p><u>Earth and Space</u> Researching and presenting individual projects focussing on our solar system, explaining day and night, seasons, and why the sun appears to move across the sky.</p>

	<p><u>Animals including humans</u> Identifying main parts of human circulatory system; describing functions of the heart, blood vessels and blood; recognising the impact on the human body of exercise, drugs, diet and lifestyle.</p> <p>Studying and raising questions about the local environment during weekly Wildlife Explorers' Club for outdoor learning.</p>
Year 6	<ul style="list-style-type: none"> - Become increasingly adept at planning scientific investigations including controlling variables, and identifying one variable to change and measure. - Take measurements with increasing accuracy and precision. - Record data and results of increasing complexity using various formats. - Report on findings from investigations, including written explanations, causal explanations and conclusions. - Present reports of findings in written form, displays and presentations - Continue to develop the ability to use test results to make predictions to set up further comparative and fair tests. - Identify a variety of forces acting on objects and explain their effects. - Describe how living things (plants, animals, micro-organisms) are categorized into groups and use keys to classify living things through identification of specific characteristics. - Observe similarities between living things (both extinct and alive) and consider how this could indicate evidence for evolution. - Understand that animals adapt to their environment and that adaptation may lead to evolution. - Apply knowledge of light travelling in a straight line to explain results in experiments. - Use recognized symbols for drawing electrical circuits. - Compare and give reasons for variations in how components function dependent on variables within a circuit. - Understand the effect of using more volts with a circuit.