

The LIFE Rural Primary Curriculum for Science Year B

Years 1 and 2



Key Knowledge – Factual information that children will acquire in the topic

Skills Progression – the building of key skills that children will develop as they go through the year groups and through the topic

Rationale – to include: why you teach this topic at all, why you teach it at your school and why you teach it in this sequence. Please make reference to any cross curricular links, school values and British Values

Subject Intent Statement

Our Rural Primary Science Curriculum allows our pupils explore their natural curiosity by asking questions and finding the answers. High quality science teaching across the schools supports children with the skills and concepts to question things for themselves; we will encourage our children from an early age to ask ‘what if...’, ‘how..’ and ‘why...’ in their response to scientific themes and concepts. As children progress through our schools, we will use their questions and curiosity to develop their scientific skills in terms of predicting, investigating, recording findings and evaluating. Children feel inspired to be boundlessly creative with their ideas and show courageous optimism that their ideas will work as they investigate a range of scientific themes. Our children will have an understanding of how science contributes to the world in which they live and how it affects our everyday life preparing them for the increasingly scientific and technological world that they are growing up in.

Topic and science unit of work	Key Knowledge	Skills Progression	Rationale
<p>Incredible Inventors</p> <p>Everyday materials</p>	<p>Materials</p> <p>Y1:</p> <ul style="list-style-type: none"> Distinguish between an object and the material from which it is made; Identify/name a variety of everyday materials; Describe simple physical properties of materials; Compare and group together materials based on simple physical properties. <p>Y2:</p> <ul style="list-style-type: none"> Identify/compare suitability of materials; Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 	<p><u>Asking Questions and Carrying Out Fair and Comparative Tests</u></p> <p>Asking simple questions and recognising that they can be answered in different ways;</p> <ul style="list-style-type: none"> Explore the world around them, leading them to ask some simple scientific questions about how and why things happen; Begin to recognise ways in which they might answer scientific questions; Ask people questions and use simple secondary sources to find answers; Carry out simple practical tests, using simple equipment; Experience different types of scientific enquiries, including practical activities; Talk about the aim of scientific tests they are working on. 	<ul style="list-style-type: none"> This science unit is taught as it is mandatory as detailed in the National Curriculum. It is important for children to understand the properties of objects and the materials which they are made from. Children must be able to make links, using real life knowledge, as to the suitability of properties to the objects uses. As well as how materials can be changed. In the Autumn Term, children use a range of different materials for printing purposes. As part of their Design Technology work, children design a boat that floats. Improvisation in music is linked with invention. It is important for children to learn about testing materials as part of the invention.
<p>All things bright and beautiful</p> <p>Plants</p>	<p>Plants</p> <p>Y1:</p> <ul style="list-style-type: none"> Identify/describe basic structure of common flowering plants/trees; Identify/name common plants, deciduous and evergreen trees. <p>Y2:</p>	<p><u>Observing and Measuring Changes</u></p> <p>Observing closely, using simple equipment.</p> <ul style="list-style-type: none"> Observe the natural and humanly constructed world around them; Observe changes over time; Use simple measurements and equipment; Make careful observations, sometimes using equipment to help them observe carefully. <p><u>Identifying, Classifying, Recording and Presenting Data</u></p>	<ul style="list-style-type: none"> This science unit is taught as it is mandatory as detailed in the National Curriculum. It is important that children recognise and know the structures of common plants and they can describe how plants grow and what they need in order to successfully grow into a mature plant. This topic is taught in the Spring Term as part of the 'All Things Bright and Beautiful' topic. In geography and history, children learn about food and how to allow things to grow correctly.

	<ul style="list-style-type: none"> Observe/describe how seeds/bulbs grow into mature plant; Find out/describe how plants need water, light and suitable temperature to grow/stay healthy. 	<p>Identifying and classifying. Gathering and recording data to help in answering questions.</p> <ul style="list-style-type: none"> Use simple features to compare objects, materials and living things; Decide how to sort and classify objects into simple groups with some help; Record and communicate findings in a range of ways with support; Sort, group, gather and record data in a variety of ways to help in answering questions such as in simple sorting diagrams, pictograms, tally charts, block diagrams and simple tables 	
<p>Let's Explore</p> <p>Humans</p>	<p>Humans</p> <p>Y1:</p> <ul style="list-style-type: none"> Identify/name/draw/label human body parts and which part is associated with sense. <p>Y2:</p> <ul style="list-style-type: none"> Notice that humans have offspring which grow into adults; find out/describe basic needs of humans for survival, describe the importance of exercise, diet and hygiene. 	<p><u>Drawing Conclusions, Noticing Patterns and Presenting Findings</u></p> <p>Using their observations and ideas to suggest answers to questions.</p> <ul style="list-style-type: none"> Notice links between cause and effect with support; Begin to notice patterns and relationships with support; Begin to draw simple conclusions; Identify and discuss differences between their results; Use simple and scientific language; Read and spell scientific vocabulary at a level consistent with their increasing word reading and spelling knowledge at key stage 1; Talk about their findings to a variety of audiences in a variety of ways 	<ul style="list-style-type: none"> This science unit is taught as it is mandatory as detailed in the National Curriculum. It is important for the children at the Rural Primary Schools to understand how their bodies work so they have a good knowledge of health through learning about the human anatomy. This topic is taught as part of the unit of work: 'Let's Explore'. The learning encompassed in the Year 2 curriculum is referred to often throughout PSHE and PE as the objectives taught are lifestyle choices. It is imperative that at an early age, children understand that the choices made in respect to diet, exercise and hygiene will impact the longevity of their lives. Additionally, these life style choices could affect mental health in the future. These teaching points form a solid basis to further units of work in PSHE and science.
<p>Let's Explore</p> <p>Seasons</p>	<p>Seasonal Changes</p> <p>Y1:</p> <ul style="list-style-type: none"> Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies 		<ul style="list-style-type: none"> This science unit is taught as it is mandatory as detailed in the National Curriculum. It is important for children to study the seasons so they are aware of the changes in each season, why this happens and how to dress appropriately. Studying the environment in PSHE and geography, links with this unit of work in which the children learn about their local area. As the seasons continue to change and the planet becomes warmer, links to seasonal changes, including weather, become more important.