

**Intent:**

Pupils should explore the world around them and raise their own questions. They should experience different types of scientific enquiries, including practical activities, and begin to recognise ways in which they might answer scientific questions. They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group them, observe changes over time. With guidance, they should begin to notice patterns and relationships. They should ask people questions and use simple secondary sources to find answers. They should use simple measurements and equipment (for example, hand lenses and egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language.

Pupils will be taught practical scientific methods, processes and skills through the teaching of content.

Term	Week/s	Topic/Theme <i>Key vocabulary including Tier 3 subject specific words</i>	Learning Outcomes Knowledge and Skills To know, to use, to apply...	Links to: Literacy, Numeracy, SMSC, Gatsby Benchmarks
Autumn	1-8	<b>Forces and Magnets</b> <i>Magnetic, Force, Contact, Attract, Repel, Friction, Poles, Push, Pull</i>	<ul style="list-style-type: none"> <li>compare how things move on different surfaces</li> <li>notice that some forces need contact between two objects</li> <li>notice that magnetic forces can act at a distance</li> <li>observe how magnets attract or repel each other</li> <li>observe how magnets attract some materials and not others</li> <li>compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet</li> <li>identify some magnetic materials</li> <li>describe magnets as having two poles</li> <li>predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> </ul>	<b>Literacy:</b> Ask questions Answer questions Write for a purpose <b>Numeracy:</b> Know compass points Know positional and directional language (e.g. above, below, opposite, left, right) Making connections and comparisons <b>SMSC:</b> Enjoy learning about the world around them, Investigate moral and ethical issues
	9-15	<b>Uses of Everyday Materials</b> <i>Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil</i>	<ul style="list-style-type: none"> <li>investigate how the shapes of solid objects made from some materials can be changed by:               <ul style="list-style-type: none"> <li>squashing,</li> <li>bending,</li> <li>twisting and</li> <li>stretching.</li> </ul> </li> </ul>	<b>Literacy:</b> Talk or write about text/pictures Develop vocabulary <b>Numeracy:</b> Visualisation <b>SMSC:</b> Enjoy learning about the world around them, Investigate moral and ethical issues
Spring	1-6	<b>Animals Including Humans</b> <i>Circulatory, Heart, Blood Vessels, Veins, Arteries, Oxygenated, Deoxygenated, Valve, Exercise, Respiration</i>	<ul style="list-style-type: none"> <li>describe the importance for humans of exercise</li> <li>describe the importance for humans of eating the right amounts of different types of food</li> <li>describe the importance for humans of hygiene.</li> </ul>	<b>Literacy:</b> Talk or write about text/pictures Ask questions Answer questions Use new vocabulary Present work <b>Numeracy:</b> Read a digital clock Sequence events <b>SMSC:</b> Enjoy learning about others, Enjoy learning about themselves
	6-12	<b>Plants</b>	<ul style="list-style-type: none"> <li>find out how plants need water, light and a suitable temperature to grow and stay healthy</li> </ul>	<b>Literacy:</b> Talk or write about text/pictures Ask questions

		<i>Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower</i>	<ul style="list-style-type: none"> <li>describe how plants need water, light and a suitable temperature to grow and stay healthy</li> </ul>	<p>Answer questions Use new vocabulary Write for a purpose Present work</p> <p><b>Numeracy:</b> Measure length/capacity/mass/time/temp Record length/capacity/mass/time/temp Sequence events</p> <p><b>SMSC:</b> Enjoy learning about the world around them</p>
<b>Summer</b>	<b>1-5</b>	<p><b>Living Things and Their Habitats</b></p> <p><i>Living, Dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert</i></p>	<ul style="list-style-type: none"> <li>describe how animals obtain their food from plants and other animals</li> <li>use a simple food chain to support this description</li> <li>identify and name different sources of food</li> </ul>	<p><b>Literacy:</b> Take part in discussion Use new vocabulary Write for a purpose Present work</p> <p><b>Numeracy:</b> Draw a pictogram/bar/tally/line/pie chart Interpret a pictogram/ bar/tally/line/pie chart</p> <p><b>SMSC:</b> Enjoy learning about the world around them, Investigate moral and ethical issues</p>
	<b>6-12</b>	<p><b>Living Things and Their Habitats</b></p> <p><i>Vertebrates, Fish, Amphibians, Reptiles, Birds, Mammals, Invertebrates, Snails, Slugs, Worms, Spiders, Insects, Environment, Habitats</i></p>	<ul style="list-style-type: none"> <li>identify and name a variety of plants in their habitats, including microhabitats</li> <li>identify and name a variety of animals in their habitats, including microhabitats</li> </ul>	<p><b>Literacy:</b> Take part in discussion Use new vocabulary Write for a purpose Present work</p> <p><b>Numeracy:</b> Draw a pictogram/bar/tally/line/pie chart Interpret a pictogram/ bar/tally/line/pie chart</p> <p><b>SMSC:</b> Enjoy learning about the world around them, Investigate moral and ethical issues</p>
<b>Whole Year</b>		<b>Working Scientifically</b>	<ul style="list-style-type: none"> <li>asking simple questions and recognising that they can be answered in different ways</li> <li>observing closely, using simple equipment</li> <li>performing simple tests</li> <li>identifying and classifying</li> <li>using their observations and ideas to suggest answers to questions</li> </ul> <p>gathering and recording data to help in answering questions.</p>	

**Intended impact:**  
By achieving all of these outcomes the pupils will have consolidated their learning. They will be able to explore and test ideas about their environment and are beginning to develop their own ideas about relationships and functions. They are starting to ask questions and draw simple conclusions using scientific language. This will prepare them for the next stage of learning.