

## Science

Throughout the year the children will cover a variety of aspects of the science curriculum to ensure all children:

- develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

<b>Autumn 1</b>	<b>Living things and their habitats – Habitat Helpers</b> <ul style="list-style-type: none"><li>• Discover that wildlife can be affected by human activity</li><li>• Understand the meaning of key scientific words like habitat &amp; ecosystem</li><li>• To Learn that living things are adapted to live in their habitat and describe some ways they do this</li><li>• Discover that when habitats change, plants and animals can be in danger</li><li>• Learn that climate change/global warming is caused by greenhouse gases that trap heat</li><li>• To discover that habitats can change disastrously because of the things humans throw away</li><li>• To know that some habitats are lost because humans use the land for another purpose</li><li>• To attempt to persuade others to make better environmental choices by presenting scientific arguments backed up with evidence.</li></ul>
<b>Autumn 2</b>	<b>Animals including humans</b> (Nutrition, skeleton, muscles) Pupils should be taught to: <ul style="list-style-type: none"><li>• To identify that animal, 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</li><li>• To identify that humans and some other animals have skeletons and muscles for support, protection and movement.</li><li>• To describe the simple functions of the basic parts of the digestive system in humans</li></ul>

	<ul style="list-style-type: none"> <li>• To identify the different types of teeth in humans and their simple functions</li> <li>• To construct and interpret a variety of food chains, identifying producers, predators and prey.</li> </ul>
<b>Spring 1</b>	<p><b>Forces and Magnets (Y3)</b></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• To compare how things move on different surfaces</li> <li>• To notice that some forces need contact between two objects, but magnetic forces can act at a distance</li> <li>• To observe how magnets attract or repel each other and attract some materials and not others</li> <li>• To 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</li> <li>• To describe magnets as having two poles</li> <li>• To predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> </ul>
<b>Spring 2</b>	<p><b>States of Matter</b></p> <ul style="list-style-type: none"> <li>• compare and group materials together, according to whether they are solids, liquids or gases</li> <li>• observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)</li> <li>• identify the part played by evaporation and</li> <li>• condensation in the water cycle and associate the rate of evaporation with temperature.</li> <li>•</li> </ul>
<b>Summer 1</b>	<p><b>Plants</b></p> <ul style="list-style-type: none"> <li>• identify and describe the functions</li> <li>• explore the requirements of plants for life</li> <li>• explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li> </ul>
<b>Summer 2</b>	<b>Scientists and Inventors</b>

**Investigations – on-going throughout all units**

*planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary  
taking measurements, using a range of simple scientific equipment,  
recording data and results using scientific diagrams and labels, classification keys, tables and, bar graphs  
using test results to make own predictions and conclusions,*