

## Year 5 Science Topics

Year Group	Autumn	Spring	Summer
Year 5	<b>Forces</b> <ul style="list-style-type: none"><li>• Gravity</li><li>• Air resistance, water resistance and friction mechanisms</li></ul>	<b>Living Things and their Habitats</b> <ul style="list-style-type: none"><li>• Life cycles</li><li>• Reproduction</li></ul> <b>Changing State</b> <ul style="list-style-type: none"><li>• Solids, solutions &amp; substances</li><li>• Reversible and irreversible changes</li><li>• Materials and their properties</li></ul>	<b>Animals including Humans</b> <ul style="list-style-type: none"><li>• Changes in humans from birth to old age</li></ul> <b>Earth and Space</b> <ul style="list-style-type: none"><li>• Movement of the Moon and Earth</li><li>• Planets in our solar system</li><li>• Day and night</li></ul>

Year 5	Objectives
<b>Working Scientifically</b>	<p>During Year 5, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>• planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>• taking measurements, using a range of scientific equipment, with increasing accuracy and precision</li> <li>• recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs</li> <li>• using test results to make predictions to set up further comparative and fair tests</li> <li>• reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations</li> <li>• identifying scientific evidence that has been used to support or refute ideas or arguments</li> </ul>
<b>Animals Including Humans</b>	<ul style="list-style-type: none"> <li>• describe the changes as humans develop to old age</li> </ul>
<b>Living Things and their Habitat</b>	<ul style="list-style-type: none"> <li>• describe the differences in the life cycle of a mammal, amphibian, an insect and a bird</li> <li>• describe the life process of reproduction in some plants and animals</li> </ul>
<b>Properties and Changes of Material</b>	<ul style="list-style-type: none"> <li>• compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</li> <li>• know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</li> <li>• use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</li> <li>• give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</li> <li>• demonstrate that dissolving, mixing and changes of state are reversible changes</li> </ul>

	<ul style="list-style-type: none"><li>• explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda</li></ul>
<b>Earth and Space</b>	<ul style="list-style-type: none"><li>• describe the movement of the Earth, and other planets, relative to the Sun in the solar system</li><li>• describe the movement of the Moon relative to the Earth</li></ul>
<b>Forces</b>	<ul style="list-style-type: none"><li>• explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</li><li>• identify the effects of air resistance, water resistance and friction that act between moving surfaces</li><li>• recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</li></ul>