

Year 5 Science Curriculum Overview and Objectives

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<p>Plants</p> <ul style="list-style-type: none"> • Understand the life cycle of plants. <p>Properties of materials</p> <ul style="list-style-type: none"> • Compare and group together everyday materials on the basis of their properties. • Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. • Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. • Demonstrate that dissolving, mixing and changes of state are reversible changes. • Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible. • Give reasons, based on evidence from comparative and fair tests, for particular uses of everyday materials, including metals, wood and plastic. 	<p>Forces</p> <ul style="list-style-type: none"> • Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. • Identify the effects of air resistance, water resistance and friction, which act between moving surfaces. • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. • Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. • Identify the effects of air resistance, water resistance and friction, which act between moving surfaces. • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. 	<p>Living things and habitats</p> <ul style="list-style-type: none"> • Pupils should be taught to: • describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • Describe the life processes of reproduction in some plants and animals. 	<p>Plants</p> <ul style="list-style-type: none"> • Understand the Life cycle of Plants Seed – Germination – growth • Know the conditions needs for different stages of plant growth. <p>Animals and humans</p> <ul style="list-style-type: none"> • Describe the changes as humans develop to old age. 	<p>Earth and space</p> <ul style="list-style-type: none"> • Describe the movement of the Earth, and other planets, relative to the Sun in the solar system • Describe the movement of the Moon relative to the Earth. • Describe the Sun, Earth and Moon as approximately spherical bodies. • Use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky. 	

Year 5/6 Ongoing Working Scientifically skills

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments