



## Science Programme of Study – Year 5 and 6 Cycle A



<p style="text-align: center;"><b>Autumn</b> The Groovy Greeks Lost in Space</p>	<p style="text-align: center;"><b>Spring</b> Earth Matters</p>	<p style="text-align: center;"><b>Summer</b> From Stone Age to Iron Age What Have The Romans Ever Done For Us?</p>
<p>Working scientifically:</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, taking repeat readings when appropriate</li> <li>• recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, 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 and degree of trust, 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>		
<p><b>Earth and Space</b></p> <p>Pupils are taught to:</p> <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> <li>• describe the Sun, Earth and Moon as approximately spherical bodies</li> </ul>	<p><b>Forces</b></p> <p>Pupils are taught to:</p> <ul style="list-style-type: none"> <li>• explain that unsupported objects fall towards 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> </ul>	<p><b>Light</b></p> <p>Pupils are taught to:</p> <ul style="list-style-type: none"> <li>• recognise that light appears to travel in straight lines</li> <li>• used the idea that light travels in straight lines to explain the objects are seen because they give out or reflect light into the eye</li> <li>• explain that we see things because light travels from light sources to our eyes or</li> </ul>

<ul style="list-style-type: none"> <li>use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</li> </ul>	<ul style="list-style-type: none"> <li>recognise that some mechanisms , including levers, pulleys and gears, allow a smaller force to have greater effect</li> </ul>	<p>from light sources to objects and then to our eyes</p> <ul style="list-style-type: none"> <li>use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</li> </ul>
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 <b>Science Programme of Study – Year 5 and 6 Cycle B</b> 		
<b>Autumn</b> <b>World War II</b>	<b>Spring</b> <b>All Change</b> <b>Evolve, Adapt, Survive</b>	<b>Summer</b> <b>Lifecycles</b> <b>Study of a European Country</b>
<p>Working scientifically:</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, taking repeat readings when appropriate</li> <li>recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, 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 and degree of trust, 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>Properties and changes of materials</b>  Pupils are taught to: <ul style="list-style-type: none"> <li>Compare and group together everyday materials on the basis of their properties</li> </ul>	<b>Evolution and inheritance</b>  Pupils are taught to: <ul style="list-style-type: none"> <li>Identify the main parts of the human circulatory system</li> </ul>	<b>Living things and their habitats</b>  Pupils are taught to: <ul style="list-style-type: none"> <li>Describe how living things are classified into broad groups according to common</li> </ul>

<ul style="list-style-type: none"> <li>• Know that some materials will dissolve in liquid to form a solution and describe how it will recover a substance from a solution</li> <li>• Use knowledge of solids, liquids and gases to decide how mixtures might be separated</li> <li>• Give reasons based on evidence for the particular uses of everyday materials</li> <li>• Demonstrate that dissolving, mixing and changes of state are reversible changes</li> <li>• Explain that some changes result in the formation of new materials and that this kind of change is not usually reversible</li> </ul>	<ul style="list-style-type: none"> <li>• Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</li> <li>• Describe the changes as humans develop to old age</li> <li>• Describe the ways in which nutrients and water are transported within animals, including humans</li> <li>• Recognise that living things have changed over time and that fossils provide information about living things that inhabited Earth millions of years ago</li> <li>• Recognise that living things produce offspring of the same kind but normally offspring vary and are not identical to their parents</li> <li>• Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</li> </ul>	<p>observable characteristics and based on similarities and differences</p> <ul style="list-style-type: none"> <li>• Give reasons for classifying plants and animals based on specific characteristics</li> </ul>
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