

# Science

## Year 5 and 6

### Spring 2

<b>Topic Earth and Space</b>						
<b>Rationale</b> The National Curriculum requires that all children learn the topics and units of work as set out in the programmes of study. All children within a two year mini-team will study the same unit of work with differentiation by level of input, support given and the content of the work completed by each student. When appropriate links are made to other areas of the curriculum with significant figures in science throughout the ages taught within each unit of work.						
<b>NC Objective</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> <li>• describe the sun, Earth and moon as approximately spherical bodies</li> <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>						
<b>Links to other Subject/Topics.</b> Maths- time.						
<b>Inspiration for Aspiration</b> Astronaut, astronomer, climate scientist, ecologist,						
<b>Key Content</b> <ul style="list-style-type: none"> <li>• What are the names of the planets in the solar system?</li> <li>• How do we know the Earth is a sphere?</li> <li>• How long does it take for Earth (and other planets) to orbit the Sun once?</li> <li>• What is the largest object that orbits the Earth?</li> <li>• Why is there day and night on Earth?</li> <li>• Does the Moon change shape?</li> </ul>						
<b>Concepts</b>						
<b>Science</b>	1	2	3	4	5	6
Plants						
Animals, including Humans						
Materials						
Light						
Sound						
Electricity						
Forces						
<b>Earth and Space</b>						
<b>Skills Year 3 and 4</b> <ul style="list-style-type: none"> <li>• Ask relevant questions and use different types of scientific enquiries to answer them</li> <li>• Explore everyday phenomena and the relationships between living things and familiar environments.</li> <li>• Raise their own questions about the world around them</li> <li>• Make some decisions about which types of enquiry will</li> </ul>			<b>Skills Year 5 and 6</b> <ul style="list-style-type: none"> <li>• Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> <li>• Identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>			

be the best way of answering questions

- Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment
- Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them
- Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used
- Notice a pattern in results
- Set up simple practical enquiries, comparative and fair tests
- Recognise when a simple fair test is necessary and help to set it up
- Think of more than one variable factor
- Gather, record, classify and present data in a variety of ways to help in answering questions
- Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables
- Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- Use notes, simple tables and standard units and help to decide how to record and analyse their data.
- Record results in tables and bar charts
- Identify differences, similarities or changes
- Talk about criteria for grouping, sorting and classifying and use simple keys
- Compare and group according to behaviour or properties
- Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations
- Use results to draw simple conclusions, make

<p>predictions, and suggest improvements</p> <ul style="list-style-type: none"> <li>• Use scientific evidence to answer questions or to support their findings</li> <li>• With help, look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions</li> <li>• See a pattern in my results</li> <li>• Say what they found out, linking cause and effect</li> <li>• Say how they could make it better</li> <li>• Answer questions from what they have found out</li> </ul>	
<p><b>Year 5 and 6 Topic Vocabulary</b>  orbit  axis  day  month  planet  solar system  year  gravity  <b>Scientific Vocabulary</b></p>	
<p><b>By the end of the topic <u>Year 5</u> children will with support</b></p> <ul style="list-style-type: none"> <li>• Name the planets in the solar system based on their distance from the Sun. They will understand that the Sun is a star (not a planet). They will know some facts about a chosen planet.</li> <li>• Describe the Earth as a spherical body. They will understand how it was discovered that the Earth was round and not flat by the Greek philosopher Aristotle.</li> <li>• Describe the movement of the Earth, and other planets relative to the Sun and understand that a year is the amount of time it takes for a planet to orbit the Sun once, and it is different for each planet.</li> <li>• Describe the movement of the Moon in relation to the Earth.</li> <li>• Explain why there is day and night on Earth.</li> <li>• Explain why the Moon appears to change shape. They will be able to describe the movement of the Moon relative to Earth and name some of the phases of the Moon.</li> </ul>	<p><b>By the end of the topic <u>Year 6</u> children will: -</b></p> <ul style="list-style-type: none"> <li>• Name the planets in the solar system based on their distance from the Sun. They will understand that the Sun is a star (not a planet). They will know some facts about a chosen planet.</li> <li>• Describe the Earth as a spherical body. They will understand how it was discovered that the Earth was round and not flat by the Greek philosopher Aristotle.</li> <li>• Describe the movement of the Earth, and other planets relative to the Sun and understand that a year is the amount of time it takes for a planet to orbit the Sun once, and it is different for each planet.</li> <li>• Describe the movement of the Moon in relation to the Earth.</li> <li>• Explain why there is day and night on Earth.</li> <li>• Explain why the Moon appears to change shape. They will be able to describe the movement of the Moon relative to Earth and name some of the phases of the Moon.</li> </ul>
<p><b>Assessment</b>  Teacher assessment of vocabulary throughout topic.  Grammarsaurus assessment</p>	