

Science

Year 5-6 2014

Key skills and Knowledge

	<b>Autumn A Groovy Greeks</b>	<b>Autumn B Oceans 11</b>	<b>Spring A Our place in Space</b>	<b>Spring B Rainforest Rules</b>	<b>Summer A What the Dickens!</b>	<b>Summer B Landmark Britain</b>
<b>Objective</b>	<ul style="list-style-type: none"> <li>Describe changes as humans develop and mature</li> </ul>	<ul style="list-style-type: none"> <li>Classify materials according to a variety of properties</li> <li>Understand mixtures and solutions</li> </ul> Reversible and irreversible changes	<ul style="list-style-type: none"> <li>Understand location and interaction of Sun, Earth and Moon</li> </ul>	Life cycles of plants and animals (inc. birds, mammal, insect, amphibian)	Introduce gravity, resistance and mechanical forces	Electricity investigating circuits
<b>Key skills</b>	<ul style="list-style-type: none"> <li><b>To work scientifically –</b> <ul style="list-style-type: none"> <li>Report findings from enquiries, including oral and written presentations of results and findings</li> </ul> </li> <li><b>To investigate living things;</b> <ul style="list-style-type: none"> <li>Describe the life cycles common to animals including humans (birth-death)</li> </ul> </li> <li><b>To understand evolution and inheritance:</b> <ul style="list-style-type: none"> <li>Recognise that living things produce off spring of the same kind, but normally offspring vary and are not identical to parents.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>To work scientifically-</b> <ul style="list-style-type: none"> <li>plan enquiries, including recognising and controlling variables where necessary</li> <li>- use appropriate techniques, apparatus and materials during work.</li> </ul> </li> <li><b>To investigate materials-</b> <ul style="list-style-type: none"> <li>-compare and group together everyday materials based on evidence from comparative fair tests, including their hardness, solubility, conductivity (electrical and thermal) and their response to magnets</li> <li>- understand how the</li> <li>-understand how 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 gasses to decide how mixtures might be separated through filtering, sieving and evaporating</li> <li>-give reasons, based on evidence from comparative</li> </ul> </li> </ul>	-describe the sun, earth and moon as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night.	-Relate knowledge of plates to studies of evolution and inheritance -relate knowledge of plates to studies of all living things.	- Explain that unsupported objects will fall towards the Earth because of the force of gravity acting between the Earth and the falling object. -Identify the effect of drag forces, such as air resistance, water resistance and friction that act between moving surfaces - Describe in terms of drag forces, why moving objects that are not driven tend to slow down. -understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.	- Identify and name the basic parts of a simple electrical circuit, including cells, wires, bulbs, switches and buzzers. -Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. -compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.

		<p>and fair tests for the particular uses of everyday materials, including metals, plastic and wood</p> <ul style="list-style-type: none"> <li>- demonstrate that dissolving, mixing and changes of state are reversible changes.</li> <li>- explain that some changes are a result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning, oxidation and the action of acid of bicarb of soda.</li> </ul>				
<b>Key Knowledge</b>						

(Key Skills taken from 2013 Chris Quigley Education Ltd)