

Science Long Term Plan: Key stage 3 higher ability, WJEC and Residential projects

2016/2017 Academic Year

Equals Schemes of Work/GCSE Aspects (W Drive> Teachers>Equals)

**Year 1**

Autumn Term	Spring Term	Summer Term
Scientific Enquiry skills	Materials and their properties	Life Processes and Living things
<p><b>Planning, observing, recording, evaluating.</b></p> <ul style="list-style-type: none"> <li>- To learn to make simple comparison and identify patterns e.g. which is fastest or biggest etc.</li> <li>- To think about what they are going to do and how they are going to do it.</li> <li>- To review their work and communicate findings to others.</li> <li>- To follow simple instructions.</li> <li>- To use simple Science equipments safely.</li> <li>- To learn new ways of recording and sharing their work e.g. Photos, Drawing, Video, Talking, Signing, Symbols etc.</li> </ul> <p><b><u>KS3 Higher</u></b></p> <p><b>Autumn 1:</b> Food and Digestion</p> <p><b>Autumn 2:</b> Energy / Sound and Hearing (Incorporate the Switch Off fortnight project for cross-curricular learning).</p> <p><b>Forest School Links</b></p>	<p><b>Sorting materials</b></p> <p>Properties of materials</p> <ul style="list-style-type: none"> <li>- Contrast and compare properties of different materials</li> <li>- Uses of materials</li> <li>- Grouping and sorting materials in different ways.</li> <li>- Linking properties of materials to different uses.</li> </ul> <p><b><u>KS3 Higher</u></b></p> <p><b>Spring 1:</b> Characteristics of Materials (Tie this in with Phil the bag project).</p> <p><b>Spring 2:</b> Reproduction (Hatching eggs and butterfly projects).</p> <p><b>Forest School Links</b></p> <p><b>WJEC</b></p> <p>Science and our universe Entry 2</p>	<p><b>Gardening and Growing Plants</b></p> <ul style="list-style-type: none"> <li>- Identifying plants and labelling parts of plants.</li> <li>- Growing plants from seeds</li> <li>- The need to and how to care for plants</li> <li>- Difference between plants</li> <li>- Plants that can be eaten.</li> </ul> <p>(Plant growing project at home and in group)</p> <p><b>Summer 1:</b></p> <p><b>Life Cycles</b></p> <ul style="list-style-type: none"> <li>- Frog</li> <li>- Butterfly</li> <li>- Chick</li> </ul> <p><b><u>KS3 Higher</u></b></p> <p><b>Summer 2:</b></p> <p>Animals and Minibeasts (Outdoor learning bags minibeasts hunt).</p> <p>Electricity - Scientific Enquiry skills</p> <p><b>Forest School Links</b></p>

<p><b>WJEC</b></p> <p>Introduction to plant Care Entry 2</p> <p>Energy in the home and work place Entry 2</p> <p><b>Residential group projects</b></p> <p><b>Autumn 2:</b> Stargazing night</p>	<p><b>Residential group projects</b></p> <p><b>Spring 1:</b> Chick hatching project</p> <p><b>Spring 2:</b> Butterfly growing project</p>	<p><b>WJEC</b></p> <p>Science and our bodies Entry 2</p> <p><b>Residential group projects</b></p> <p><b>Summer 1:</b> Plant growing project</p> <p><b>Summer 2:</b></p>
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**Year 2**

<b>Autumn Term</b>	<b>Spring Term</b>	<b>Summer Term</b>
<p>Physical Processes</p> <p><b>Light and Dark</b></p> <ul style="list-style-type: none"> <li>- Light is needed for seeing</li> <li>- Light from various sources</li> <li>- Objects that look bright and shiny when illuminated by a light source</li> <li>- The necessity of light when exploring in darkness.</li> <li>- The sun as a source of light and its connection with day and night.</li> </ul> <p><b>WJEC</b></p> <p>Introduction to plant Care Entry 3</p> <p>Energy in the home and workplace Entry 3</p>	<p>Materials and Property</p> <p><b>Rocks and Soils</b></p> <ul style="list-style-type: none"> <li>- The uses of rocks</li> <li>- Different types of rocks</li> <li>- Testing rocks</li> <li>- Choosing rocks for specific purposes</li> <li>- The origins of soil</li> <li>- Different types of soil</li> <li>- Investigating soils</li> </ul> <p><b>Grouping and changing materials</b></p> <ul style="list-style-type: none"> <li>- Types of material</li> <li>- Natural materials</li> </ul> <p><b>WJEC</b></p> <p>Science and our universe Entry 3</p>	<p>Life Processes and Living things</p> <p><b>Ourselves</b></p> <p>To experience using the senses to explore in different ways– Sight, Taste, Touch, Hear, and use the keywords associated with these.</p> <ul style="list-style-type: none"> <li>- Recognising human faces</li> <li>- Similarities in people’s bodies.</li> <li>- Different ways of moving</li> <li>- How people develop as they grow</li> <li>- Differences between people and animals</li> <li>- Themselves as an individual and part of a group.</li> </ul> <p><b>WJEC</b></p> <p>Science and our bodies Entry 3</p>

**Year 3**

<b>Autumn Term</b>	<b>Spring Term</b>	<b>Summer Term</b>
<p align="center">Scientific Enquiry skills</p>	<p align="center">Physical Processes</p>	<p align="center">Life Processes and Living things</p>
<p><b>Planning, observing, recording, evaluating.</b></p>	<p><b>Pushes and Pulls</b></p>	<p><b>Plants and Animals</b></p>
<ul style="list-style-type: none"> <li>- To learn to make simple comparison and identify patterns e.g. which is fastest or biggest etc.</li> <li>- Planning - To think about what they are going to do and how they are going to do it.</li> <li>- To review their work and communicate findings to others.</li> <li>- To follow simple instructions.</li> <li>- To use simple Science equipments safely.</li> <li>- Presenting Evidence - To learn new ways of recording and sharing their work e.g. Photos, Drawing, Video, Talking, Signing, Symbols etc.</li> </ul>	<ul style="list-style-type: none"> <li>- Causing a reaction by moving and/or using their bodies.</li> <li>- Pushes</li> <li>- Pulls</li> <li>- Spins</li> <li>- The impact of movement on materials and people.</li> </ul>	<ul style="list-style-type: none"> <li>- Features and parts</li> <li>- Differences between them</li> </ul>
	<p><b>Sound and hearing</b></p>	<p><b>Mini beasts</b></p>
	<ul style="list-style-type: none"> <li>- The presence and absence of sound</li> <li>- Familiar sounds</li> <li>- Common sounds around us.</li> <li>- Making sounds</li> <li>- Changing sounds</li> <li>- Locating sounds</li> <li>- Music as sound</li> </ul>	<ul style="list-style-type: none"> <li>- Identifying and naming them.</li> <li>- How do they survive?</li> </ul>
		<p><b>Health and Growth</b></p>
		<ul style="list-style-type: none"> <li>- The movement and growth of all living things</li> <li>- The necessity of living things to eat and drink in order to stay alive.</li> <li>- The necessity of living things to rest and exercise in order to stay healthy.</li> <li>- Reproduction in humans and other animals.</li> <li>- Balance diet for health</li> <li>- Keeping fit</li> <li>- Taking care of our teeth</li> </ul>