



Providing the rich soil that enables  
our children to develop deep roots and flourish.

### Immersion Curriculum: Y1/2

At Amberley, each unit of Science contains the key elements of - **working scientifically**, **biology** (understand plants, animals and humans, investigate living things evolution and inheritance), **chemistry** (investigate materials), **physics** (understand movement, forces and magnets, light and seeing, investigate sound and hearing, understand electrical circuits, Earth's movement in space.)



#### Intent:

For all learners to have...

- The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings.
  - Confidence when using practical skills, for example, planning and carrying out scientific investigations.
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.
  - A passion for science and being a scientist.

#### Impact

The children of Amberley will understand and develop the traits and skills needed to become Scientists. They understand that Science is about how the world works, and they aim to behave like scientists in the way they ask questions, make observations and draw conclusions. They will accumulate a knowledge and skills base that will allow them to deepen their understanding in a range of areas of Science.

## Implementation

Focus		Milestone for end of Key stage one (Year 1/2)	National Curriculum Objectives: By the end of the Key stage (Year 2)
<b>Electricity</b>		<ul style="list-style-type: none"> <li>• <i>Identify common appliances that run on electricity.</i></li> <li>• <i>Construct a simple series electrical circuit.</i></li> </ul> <p><i>DT objective:</i></p> <ul style="list-style-type: none"> <li>• Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).</li> </ul>	Non Statutory
<b>Duration</b>	<b>Cycle</b>		
2 weeks	B Term 1		
<b>Making it Real</b>		<p><b>Ongoing Milestones:</b></p> <ul style="list-style-type: none"> <li>• Ask simple questions.</li> <li>• Observe closely, using simple equipment.</li> <li>• Perform simple tests.</li> <li>• Identify and classify.</li> <li>• Use observations and ideas to suggest answers to questions.</li> <li>• Gather and record data to help in answering questions.</li> </ul>	<p><b>Key Vocabulary:</b></p> <p>Refer to whole school vocabulary progression document.</p>
Eco-friendly Saving energy Appliances in the home			

Focus		Milestone for end of Key stage one (Year 1/2)	National Curriculum Objectives: By the end of the Key stage (Year 2)
<b>Plants</b>		<ul style="list-style-type: none"> <li>Identify and name a variety of common plants, including garden plants, wild plants and trees and those classified as deciduous and evergreen.</li> <li>Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.</li> <li>Observe and describe how seeds and bulbs grow into mature plants.</li> <li>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> <li>identify and describe the basic structure of a variety of common flowering plants, including trees</li> <li>observe and describe how seeds and bulbs grow into mature plants</li> <li>find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</li> </ul>
<b>Duration</b>	<b>Cycle</b>		
2 weeks	B Term 3		
<b>Making it Real</b>		<p><b>Ongoing Milestones:</b></p> <ul style="list-style-type: none"> <li>Ask simple questions.</li> <li>Observe closely, using simple equipment.</li> <li>Perform simple tests.</li> <li>Identify and classify.</li> <li>Use observations and ideas to suggest answers to questions.</li> <li>Gather and record data to help in answering questions.</li> </ul>	<p><b>Key Vocabulary:</b></p> <p>Refer to whole school vocabulary progression document.</p>
Looking at plants around the school; Planting seeds and looking at growth			

Focus		Milestone for end of Key stage one (Year 1/2)	National Curriculum Objectives: By the end of the Key stage (Year 2)
<b>Properties of materials</b>		<ul style="list-style-type: none"> <li>• Distinguish between an object and the material from which it is made.</li> <li>• Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.</li> <li>• Describe the simple physical properties of a variety of everyday materials.</li> <li>• Compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• distinguish between an object and the material from which it is made</li> <li>• identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</li> <li>• describe the simple physical properties of a variety of everyday materials</li> <li>• compare and group together a variety of everyday materials on the basis of their simple physical properties</li> </ul>
<b>Duration</b>	<b>Cycle</b>		
2 weeks	B Term 4		
<b>Making it Real</b>		<p><b>Ongoing Milestones:</b></p> <ul style="list-style-type: none"> <li>• Ask simple questions.</li> <li>• Observe closely, using simple equipment.</li> <li>• Perform simple tests.</li> <li>• Identify and classify.</li> <li>• Use observations and ideas to suggest answers to questions.</li> <li>• Gather and record data to help in answering questions.</li> </ul>	<p><b>Key Vocabulary:</b></p> <p>Refer to whole school vocabulary progression document.</p>
Looking at objects around the school and the material it is made from			

Focus		Milestone for end of Key stage one (Year 1/2)	National Curriculum Objectives: By the end of the Key stage (Year 2)
<b>Living Things</b>		<ul style="list-style-type: none"> <li>Identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates.</li> <li>Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, including pets).</li> <li>Explore and compare the differences between things that are living, that are dead and that have never been alive.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>explore and compare the differences between things that are living, dead, and things that have never been alive</li> <li>identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</li> <li>identify and name a variety of plants and animals in their habitats, including microhabitats</li> <li>describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food</li> </ul>
<b>Duration</b>	<b>Cycle</b>		
2 weeks	B Term 5		
<b>Making it Real</b>		<p><b>Ongoing Milestones:</b></p> <ul style="list-style-type: none"> <li>Ask simple questions.</li> <li>Observe closely, using simple equipment.</li> <li>Perform simple tests.</li> <li>Identify and classify.</li> <li>Use observations and ideas to suggest answers to questions.</li> <li>Gather and record data to help in answering questions.</li> </ul>	<p><b>Key Vocabulary:</b></p> <p>Refer to whole school vocabulary progression document.</p>
Identifying animals and habitats within our community and school grounds.			

Focus		Milestone for end of Key stage one (Year 1/2)	National Curriculum Objectives: By the end of the Key stage (Year 2)
<b>Animals and their habitats</b>		<ul style="list-style-type: none"> <li>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</li> <li>Notice that animals, including humans, have offspring which grow into adults.</li> <li>Investigate and describe the basic needs of animals, including humans, for survival (water, food and air).</li> <li>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants and how they depend on each other.</li> <li>Identify and name a variety of plants and animals in their habitats, including micro-habitats.</li> <li>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</li> <li>identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</li> </ul>
<b>Duration</b>	<b>Cycle</b>		
2 weeks	B Term 6		
<b>Making it Real</b>		<p><b>Ongoing Milestones:</b></p> <ul style="list-style-type: none"> <li>Ask simple questions.</li> <li>Observe closely, using simple equipment.</li> <li>Perform simple tests.</li> <li>Identify and classify.</li> <li>Use observations and ideas to suggest answers to questions.</li> <li>Gather and record data to help in answering questions.</li> </ul>	<p><b>Key Vocabulary:</b></p> <p>Refer to whole school vocabulary progression document.</p>
Identifying and naming common animals (including pets)			