



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)
Seasons		<ul style="list-style-type: none"> • Observe the apparent movement of the Sun during the day. • Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • observe changes across the 4 seasons • observe and describe weather associated with the seasons and how day length varies • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions
Duration	Cycle		
1 week	A Term 1		
Making it Real		<p>Ongoing Milestones:</p> <ul style="list-style-type: none"> • Ask simple questions. • Observe closely, using simple equipment. • Perform simple tests. • Identify and classify. • Use observations and ideas to suggest answers to questions. • Gather and record data to help in answering questions. 	<p>Key Vocabulary: Autumn, Spring, Summer, Winter, seasons, axis, hours, days, months of the year, earth, sun, moon, spins, movement, shadow.</p> <p>Appropriate vocabulary will be selected from this list based on content.</p>
<p>Scavenger hunt during the Autumn Term; looking at shadows throughout the day.</p>			

Focus:		Milestone for end of Key stage one (Year 1/2)	National Curriculum Objectives: By the end of the Key stage (Year 2)
Forces		<ul style="list-style-type: none"> • Notice and describe how things move, using simple comparisons such as faster and slower. • Compare how different things move. 	<p>Working scientifically:</p> <ul style="list-style-type: none"> • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions
Duration	Cycle		
2 weeks	A Term 3		
Making it Real		<p>Ongoing Milestones:</p> <ul style="list-style-type: none"> • Ask simple questions. • Observe closely, using simple equipment. • Perform simple tests. • Identify and classify. • Use observations and ideas to suggest answers to questions. • Gather and record data to help in answering questions. 	<p>Key Vocabulary: Forces, push, pull, friction, comparing, faster, slower, movement.</p> <p>Appropriate vocabulary will be selected from this list based on content.</p>
Look at forces in the real world (playground)			

Focus:		Milestone for end of Key stage one (Year 1/2)	National Curriculum Objectives: By the end of the Key stage (Year 2)
Materials and their uses		<ul style="list-style-type: none"> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard for particular uses. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions
Duration	Cycle		
2 weeks	A Term 4		
Making it Real		<p>Ongoing Milestones:</p> <ul style="list-style-type: none"> Ask simple questions. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Use observations and ideas to suggest answers to questions. Gather and record data to help in answering questions. 	<p>Key Vocabulary: Solids, squashing, twisting, bending, stretching, suitability, materials, use.</p> <p>Appropriate vocabulary will be selected from this list based on content.</p>
Compare materials practically, looking at everyday items and their suitability.			

Focus:		Milestone for end of Key stage one (Year 1/2)	National Curriculum Objectives: By the end of the Key stage (Year 2)
Light and sound		<ul style="list-style-type: none"> • Observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes. • Observe and name a variety of sources of sound, noticing that we hear with our ears. 	<p>Working scientifically:</p> <ul style="list-style-type: none"> • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions
Duration	Cycle		
2 weeks	A Term 5		
Making it Real		<p>Ongoing Milestones:</p> <ul style="list-style-type: none"> • Ask simple questions. • Observe closely, using simple equipment. • Perform simple tests. • Identify and classify. • Use observations and ideas to suggest answers to questions. • Gather and record data to help in answering questions. 	<p>Key Vocabulary: Light, sound, travelling, source.</p> <p>Appropriate vocabulary will be selected from this list based on content.</p>
Environmental issues; eco-friendly			

Focus:		Milestone for end of Key stage one (Year 1/2)	National Curriculum Objectives: By the end of the Key stage (Year 2)
Humans		<ul style="list-style-type: none"> • Identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. • Notice that animals, including humans, have offspring which grow into adults. • Investigate and describe the basic needs of animals, including humans, for survival (water, food and air). • Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene. • <i>Identify how humans resemble their parents in many features.</i> 	Pupils should be taught to: <ul style="list-style-type: none"> • notice that animals, including humans, have offspring which grow into adults • find out about and describe the basic needs of animals, including humans, for survival (water, food and air) • describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene
Duration	Cycle		
2 weeks	A Term 2		
Making it Real		Ongoing Milestones: <ul style="list-style-type: none"> • Ask simple questions. • Observe closely, using simple equipment. • Perform simple tests. • Identify and classify. • Use observations and ideas to suggest answers to questions. • Gather and record data to help in answering questions. 	Key Vocabulary: Foetus, child, toddler, teenager, adult, elderly adult, sense, survival, water, food, air, exercise, food types, hygiene. Appropriate vocabulary will be selected from this list based on content.
Environmental issues; eco-friendly			