

Science at Kempsford C of E Primary School

At Kempsford C of E Primary School, we believe that Science is seen as an important part of a child's rounded education. It enables children to draw on their innate curiosity (Dewey, 1963) about the world and to raise questions, to solve problems, to explore, to experiment and to discuss big issues. We intend for children to be able to apply their new found knowledge in a variety of contexts. Our Science will compliment Kempsford's Characteristics of Learning and the STRIKE curriculum

Subject Leader Curriculum Intent, Implementation and Impact Overview			
Date developed September 2020		Date to review August 2021	
Intent		Subject Leader: Richard Mendum	
Intent	Research link	Implementation	Impact
<p>To build a Science curriculum which develops learning and results in the acquisition of knowledge.</p>	<p>Education Endowment Fund research indicates that by identifying key learning styles of children will underpin the individual's style of preferred learning. The theory is that learning will therefore be more effective or more efficient if pupils are taught using the specific style or approach that has been identified as their learning style. A successful approach will allow children to make an additional two month's progress.</p>	<ul style="list-style-type: none"> • Clear and comprehensive scheme of work in line with the National Curriculum. <i>Teaching and Learning should show progression across all key stages within the strands of Science.</i> • Knowledge Organisers <i>Children have access to key language and meanings in order to understand and readily apply to their written, mathematical and verbal communication of their skills.</i> • Children will access resources to acquire learning through Science equipment, digital technology, practical experiences and photographs. <i>Children will use a range of secondary resources to develop their knowledge and understanding that is integral to their learning.</i> 	<ul style="list-style-type: none"> • Children will achieve age related expectations in Science at the end of their cohort year. • Children will retain knowledge that is pertinent to Science with a real life context.
<p>To build a Science curriculum which, enables children to become enquiry based learners.</p>	<p>The Thinking Doing Talking Science Project (2012) aims to make science lessons in primary schools more practical, creative and challenging. The project found pupils made three additional months' progress, on average, in science, with a particularly positive effect for girls and pupils with low prior attainment. The programme appeared to have a positive impact on attitudes towards Science and supported enquiry based learning.</p> <p>Education Endowment Fund research indicates that the ability to reason scientifically – by testing hypotheses through well-controlled experiments – is a strong predictor of later success in the sciences and that this skill can be developed through experiences that allow pupils to design experiments that require them to control variables.</p>	<ul style="list-style-type: none"> • Clear and comprehensive scheme of work in line with the National Curriculum. <i>Teaching and Learning should plan for practical investigative opportunities within Science lessons termly.</i> • Children will reflect on previous learning and cross curricula links will be made through Literacy and Theme. <i>Children will be able to build on prior knowledge and link ideas together, enabling them to question and become enquiry based learners.</i> • Educational Visits <i>Where applicable links to Science will be made to develop the children's topical learning.</i> • Forest School Link <i>All children will access Forest School learning from a trained teacher in school.</i> • British Values and PSHE Children will learn and revisit the importance of our world and how it should be treated. 	<ul style="list-style-type: none"> • Children will achieve age related expectations in Science at the end of their cohort year. • Children will retain knowledge that is pertinent to Science with a real life context. • Children will be able to question ideas and reflect on knowledge. • Children will work collaboratively and practically to investigate and experiment. • Children will be able to explain the process they have taken and be able to reason scientifically.

	<p>Children need the ability to use facts only as a starting point. Facts alone are stored in the short term memory. By using these facts, children can develop higher order skills such as : understanding, applying, analysing, evaluating and creating (Krathwohl, 2002).</p>		
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