



INTENT	<p>The intent of our Science curriculum is</p> <p>Intent National Curriculum states, “A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world’s future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science.”</p>	<p>... to teach our children how to make sense of the world around them by developing their ability to research, formulate questions, investigate and use enquiry skills to come to their own conclusions . We want our children to recognise and understand how science applies to every aspect of their lives and to understand how many opportunities there are for working in scientific fields.</p> <p>We expect Science to reflect real life contexts including how science relates to their own health and well-being, the application of science in our local area and as a viable career option, as well as appreciating the world around them and the role of science in making that world a better place to live.</p> <p>At Caedmon Primary, we have an embedded practical and investigative approach to the delivery of the science curriculum to promote deeper understanding of concepts within the specific disciplines of Biology, Chemistry and Physics. It challenges the children’s thinking while providing an enjoyable environment to learn new skills, working scientifically.</p>
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IMPLEMENTATION	<p>The experiences your children will receive are</p>	<p>Positive, practical and fun. Our lessons promote curiosity, enquiry, research, group work and investigation as fundamental skills for each child to acquire in their learning journey in our school. We reinforce an expectation that all children are capable of achieving high standards in science and that will have a positive impact on their lives and future aspirations. Science planning is provided via a rolling programme, within each stage team and, where practical, is the current topic or related to their current topic. Cross curricular links are also provided for pupils to access aspects of the science curriculum through literacy, maths and computing.</p> <p>Pupils are given a ‘hook’ to develop their enjoyment and curiosity about each aspect of their science learning This is done, wherever possible, experientially through visits, visitors, web based opportunities, links with different STEM organisations and use of the outdoors. We also participate in national and local initiatives to promote science including: British Science Week, STEM careers work through ECO explorers club and links with our feeder secondary schools. Teachers find opportunities to develop children’s understanding of their surroundings by accessing outdoor learning and workshops with experts.</p> <p>We give pupils opportunities at least once a week or as part of science intensive days or weeks to engage in science lessons that involve a practical, ‘hands on’ investigative approach to discovery of different aspects of the science curriculum involving high-quality resources to aid understanding of conceptual knowledge. Working Scientifically skills are embedded into lessons and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics. Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding.</p> <p>Through our planning, we involve problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers in pairs or small groups. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up. LBQ is also used as a teaching and assessment tool in UKS2. We build upon the learning and skill development of the previous years. As the children’s knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.</p>
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IMPACT	By the end of their time at Caedmon Primary, we hope our children	... are curious and creative learners who seek a better understanding of the world around them and aspire to a better future for and within that world. We aim for them to have the ability to ask questions about the world around them and have the ability to develop the scientific knowledge and vocabulary to record results, draw their own conclusions and investigate further as they move onto the next stage of their schooling. Practical, paired and group work within their science topics will have allowed our children to develop the necessary skills to work collaboratively. The use of practical work to answer their own questions means that our children will have an appreciation of their own contribution to keeping themselves healthy and safe. It will allow them to understand that some questions do not yet have an answer or require further research, allowing them to have develop greater resilience and better problem solving skills. Our pupils will also have gained knowledge and skills that will ultimately lead them to become more responsible towards themselves and the environment in which we live.
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