



Science 3 I's

Science is a series of observations, investigations and experiments to help us understand how the world works.

<u>Intent</u>	<u>Implementation</u>
<p>At Caldecote, we aspire for all of our pupils to access a high-quality science education, experience and teaching in their primary school life. Our science curriculum is broad, balanced and is designed to help pupils to learn, remember, experience and develop wide-ranging scientific knowledge, skills, understanding and vocabulary. Science is a series of observations, investigations and experiments to help us understand how the world works. Our science curriculum reflects this definition and science lessons will often include practical elements that help pupils to better understand how our world works.</p> <p>Our science curriculum is designed with our pupils' learning and needs at its centre, so that all pupils, and particularly disadvantaged pupils and pupils with SEND, are empowered to gain a scientific knowledge to support their future successes in life – no matter what their starting point. The science curriculum is designed and taught based on pupils' prior knowledge and experiences, with the intention of building on what pupils already know in order for all pupils to achieve highly and develop their knowledge, skills and understanding in science as they progress through the school.</p> <p>It is an essential part of our science curriculum that pupils are exposed to regular, high-quality science lessons and have the opportunity to engage in additional, extra-curricular opportunities in science too, in order to raise aspirations and enable pupils to acquire the cultural capital they need to succeed in life, as well as develop the skills and knowledge they need to be successful in science as a unique subject.</p>	<p>Science is taught on a weekly basis (in one extended lesson per week in KS1 and two lessons per week in KS2). We follow the Primary Knowledge Curriculum Schemes of Work based on the National Curriculum program of study.</p> <p>Across the school children learn about the human body, animals, lifecycles and reproduction, plants, evolution, the seasons and weather (meteorology), the earth and environment, astronomy, materials, states of matter, forces and magnets, light and sound, electricity, and rocks. We also endeavor to introduce children to influential scientists from across the ages. The curriculum develops children's skills of 'working scientifically' - through access to a wide range of practical equipment - and a high-quality science vocabulary across all strands of the science curriculum. Units of study incorporate early assessment of pupils' prior knowledge and vocabulary understanding, through cold tasks, which help to ensure that relevant teaching and learning sequences are planned to enable all pupils make progress. This approach ensures that all pupils' needs are met, misconceptions are identified and addressed, and new skills, knowledge and understanding are taught and acquired in science, no matter pupils' starting points. Science lessons also incorporate opportunities for challenge and mastery.</p> <p>Ongoing evaluation and assessment of pupils' knowledge, skills and understanding enables all pupils to achieve highly in science: at the end of each unit, hot tasks show that pupils know more, remember more and are able to do more in science. Units are revisited across year groups and key stages, to enable pupils to develop fluency in science.</p>
<u>Impact</u>	
<p>As a school, we place great value on developing and monitoring our wider curriculum, including</p>	



science. We ensure that every half term a monitoring activity is carried out in order to assess the quality of teaching and learning across all areas of the curriculum. Subject leaders are responsible for ensuring progress across their subject, supporting teachers with subject knowledge, planning and other relevant aspects, including reporting to governors, communicating with colleagues and pupils, providing and replacing resources, monitoring learning evidence and supporting and monitoring teaching and learning. This ensures the highest quality of teaching and learning in science across the school. In science, we ensure that wider opportunities are developed across the academic year and that all children have access to additional scientific experiences (such as trips, workshops and the opportunity to meet real scientists). This enrichment of the science curriculum ensures that children leaving Caldecote have had a varied and rich experience of science, with an aim to leading to a lifelong love of, and engagement in, science.