

Science at Cawood CE VA Primary School

Intent	<p style="text-align: center;">Stepping Forward Together</p> <p style="text-align: center;">We strive to provide the highest standards of education.</p> <p>Our distinctive christian values of Perseverance, Friendship, Thankfulness and Wisdom (PFTW) drive our ambition, that every member of our community will flourish and fulfill their potential as a child of God.</p> <p>John Chapter 10 verse 10 <i>...I have come that they may have life, and have it to the full.</i> <i>This is supported through our 5 ways to flourish which underpin our decision making and teaching and learning approaches.</i></p> <p>At Cawood Primary we believe that a high-quality Science education provides the foundations for understanding the world in which we all live.</p> <p>Children start on their Science education journey in the EYFS. The Framework has the strand of 'Understanding the World --'The Natural World' which sets out clear, identifiable scientific knowledge that children will learn. It also provides a number of rich contexts for pupils to develop a secure foundation and to learn a wide range of vocabulary.</p> <p>There is a long term plan in place that is regularly reviewed and updated. When planning lessons and learning opportunities, teachers also refer to the National Curriculum Programmes of Study, the Early Years Foundation Stage Framework and North Yorkshire Science Scheme of Learning. Currently we plan for the long term in two yearly cycles of access. Within each key stage, the school has the flexibility to introduce content earlier or later than set out in the programme of study and may introduce key stage content during an earlier key stage if appropriate. Where it is useful and beneficial to learning, the science curriculum has been designed to integrate with other areas of the curriculum for example music and history. A further good example of this is a historic understanding of the Garth</p> <p>In response to the The State of Nation' report in primary Science in 2020, Cawood Primary science is taught as a core subject and as such is taught regularly across all three terms. This is usually in weekly sessions but on occasions may be taught in a block.</p> <p>The working scientifically aspect of the National Curriculum is built into each unit of learning, and progression is carefully mapped. Scientific enquiries are planned to develop pupils' skills in working scientifically and the five enquiry types, whilst links between science with other curriculum areas establish deeper understanding and stronger neural pathways, to help children to remember more of what they learn.</p> <p>Our curriculum has a very practical base for pupils to enjoy learning and develop a secure understanding. Our intent is that all pupils:</p> <ul style="list-style-type: none">• develop scientific knowledge and conceptual understanding through the disciplines of Biology, Chemistry and Physics;• develop understanding of the nature, processes and methods of Science through different types of science enquiries that help them to answer scientific questions about the world around them;• are equipped with the scientific knowledge required to understand the uses and implications of Science, today and for the future. <p>In learning about science Cawood children are developing:</p> <ul style="list-style-type: none">• a positive attitude towards Science and an awareness of its fascination;• an understanding of Science through a process of enquiry and investigation;• confidence and competence in scientific knowledge, concepts and skills;• an ability to reason, predict, think logically and to work systematically and accurately;• an ability to communicate scientifically;• the initiative to work both independently and in co-operation with others;• the ability to use and apply science across the curriculum and in real life situations.
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Implementation	<p>Science continues to change and shape our lives and is vital to the world's future development and prosperity. Through building key foundational knowledge, skills and concepts within science lessons and across the curriculum, pupils at Cawood are encouraged to develop a sense of excitement and curiosity about the natural world as well as to recognise the power of rational explanation. Cawood pupils are encouraged to understand how key knowledge and concepts can be used to explain what is occurring, predict how things will behave, and analyse causes.</p> <p>At Cawood we are fortunate to have a wonderful environment, both surrounding our school and within our local village. Our science lessons take us beyond the classroom as we discover and explore plants, animals and habitats in our wildlife area, our school woods and the village Garth - a protected conservation area</p> <p>The completeness of the science curriculum science is held together by our whole school ethos and statement of intent, which we call our 5 ways to flourish; Take Notice, Be Active, Give, Connect and Keep Learning.</p> <p>Science lessons are planned to be engaging and practical in nature so that the children are given time to question and explore and develop a good understanding. We believe that these practical sessions need to be underpinned by developing a deep understanding of the associated scientific concepts. (Observation from STEM Science and a recent report from The Ogden Trust and the University of Manchester)</p> <p>To ensure that this happens, we implement a high quality science curriculum that not only identifies the important concepts and procedures for pupils to learn, it also plans how pupils will build knowledge of these over time, with opportunities to recall and revisit key areas. Our curriculum is organised so that pupils' knowledge of concepts develops from component knowledge that is carefully sequenced. We have carefully designed our curriculum so that new knowledge is broken down into meaningful components and introduced sequentially. This approach ensures that the curriculum is accessible to all pupils.</p> <p>By planning to recall, revisit and then build onto prior knowledge, our curriculum is coherent. This journey starts in the early years when pupils are introduced to a wide range of vocabulary and phenomena. As pupils progress through our science curriculum, new knowledge is systematically integrated into pre-existing knowledge.</p>
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