



Science Subject Statement

Intent

At Long Wittenham CofE Primary School, our science curriculum is dedicated to cultivating a profound appreciation for scientific exploration while embodying our core values of kindness, curiosity, and determination. We aim to kindle a natural curiosity in our students, encouraging them to question and explore the world around them through engaging hands-on activities. Simultaneously, our curriculum emphasizes the importance of resilience, enabling students to overcome challenges and setbacks in their scientific pursuits. By integrating these values, we strive to not only foster a lifelong love for science but also equip our students with the essential skills of critical thinking and problem-solving. Through this approach, we aspire to mould resilient individuals who will confidently navigate the complexities of the world and contribute meaningfully to society. Through an interactive, inquiry-based curriculum that underscores questioning, challenging, hands-on practical work, investigation, evaluation, decision-making, independent learning, and the use of scientific terminology, we aim to nurture well-rounded learners who embody our school values.

Implementation

To achieve our intent, the Science curriculum is implemented through a hands-on, inquiry-based approach that prioritizes active learning and real-world application. Our teachers employ a variety of instructional strategies, including experiments, observations, field trips, and the use of technology, to make learning engaging and meaningful.

We uphold high standards of teaching and learning in science, implementing a progressive curriculum throughout the school, from EYFS up to KS2. We follow a mixed year group plan, organized by topics, designed to align with the statutory requirements for Primary Science and ensure full coverage of the National Curriculum. Each topic is presented repeatedly throughout the curriculum with deepening levels of complexity and in different contexts. At the beginning of each topic, teachers invest time in understanding what the children already know and wish to discover through a simple elicitation task.

We believe that the key to delivering an effective science curriculum is to teach the children to apply their scientific knowledge and learn to identify and understand appropriate scientific methodologies and enquiry types needed in a variety of situations. Our curriculum ensures a balanced progression which overtly identifies the appropriate enquiry type and working methodology for each learning unit.

An essential part of our curriculum involves providing contextual examples of how science is applied in the 'real' world: Geographically, Long Wittenham benefits from being close to centers of scientific excellence, and as a result, our wider school community provides us with ample opportunities for visits and interactions with local scientists. Our commitment extends to providing exciting, hands-on, and practical experiences for all children, fostering independent learning, curiosity, and a passion for science.

Impact

The impact of our Science curriculum is reflected in the enthusiasm, confidence, and character development of our students. They develop a robust understanding of scientific principles and processes, enabling them to think critically, solve problems effectively, and approach challenges with determination.

We use formative assessment as our primary tool for evaluating the impact of our science curriculum, swiftly addressing misconceptions, and ensuring a secure foundation for learning. In addition to this we use summative assessment as part of the review task at the end of each unit of study.

Our approach fosters a love for science, sparking curiosity and inspiring further study. Children develop a practical understanding of scientific concepts, retaining knowledge that is applicable to real-life contexts. They learn to question ideas, reflect on their knowledge, and articulate their understanding using rich scientific language. From Early Years to Year 6, our students understand the transformative role of science in shaping our lives and our future.

Our curriculum ensures that children know *more*, remember *more*, and understand *more*. They retain prior learning and make explicit connections between concepts, enriching their scientific knowledge and understanding. Drawing on the scientific expertise in our local area, we expose children to cutting-edge science, and through our forest school provision, we enable them to develop a love for the natural world. Our annual Science Club gives the children the opportunity to explore their passion for science.