



Science

Intent, Implementation and Impact statement

Intent

At Weare Academy, our intent for Science education is to foster a sense of curiosity and wonder about the natural world, aligned with our school vision that enables all children, regardless of background, ability, or additional needs, to flourish and become the very best version of themselves. We aim to provide a high-quality science education that enables pupils to understand and engage with the scientific concepts, skills, and processes that underpin our everyday lives. Our intent is guided by the following principles:

- **Engagement and Inspiration:** We want students to be actively engaged in their learning through hands-on experiences and real-world applications. We aim to inspire a lifelong interest in science, encouraging students to ask questions and seek answers.
- **Inquiry-Based Learning:** Our curriculum is founded on an inquiry-based approach, promoting exploration and investigation where pupils actively construct their understanding of scientific concepts. This methodology encourages critical thinking and fosters independent learning.
- **Knowledge and Skills Development:** We aim to equip our pupils with the foundational knowledge and scientific skills needed to explore, investigate, and understand the world around them. We prioritise a curriculum that covers essential scientific concepts across biological, chemical, and physical sciences.
- **Inclusivity:** We are committed to ensuring that all pupils, regardless of their background or ability, have access to a rich and varied science curriculum that meets their individual needs. We adapt our teaching strategies to support and challenge every learner.
- **Environmental and Global Awareness:** Recognising the importance of sustainability, we incorporate environmental education and global scientific issues into our curriculum, helping pupils understand their role in the wider world.

Implementation

To put our intent into practice, we have developed a comprehensive and coherent Science curriculum that is inquiry-based, progressive, and inclusive. The implementation strategies include:

- **Inquiry-Centred Curriculum Design:** Our Science curriculum is designed to progressively build pupils' knowledge and skills through inquiry-based learning experiences. We align our curriculum with the National Curriculum objectives, ensuring that it remains challenging yet accessible for all learners.
- **Hands-on Investigations:** We employ a variety of hands-on investigations where pupils engage in scientific experiments as part of their learning journey. This method enhances their ability to ask questions, formulate hypotheses, and draw conclusions based on their findings.

- **Cross-Curricular Links:** We establish strong links between science and other subjects, such as Mathematics, Art and Geography, to provide pupils with a more holistic understanding of scientific principles. This is achieved through themed topics and collaborative projects that are enquiry-led.
- **Professional Development:** We invest in ongoing professional development for our staff, ensuring they are confident in delivering an inquiry-based Science curriculum. This includes training in the use of innovative teaching resources and staying updated with current scientific advancements.
- **External Partnerships:** We foster relationships with local scientists, educational institutions, and organisations to enhance the learning experience. This includes field trips, guest speakers, and practical workshops that bring real-world science into the classroom.

Impact

The effectiveness of our Science curriculum, shaped by our intention to enable all pupils to flourish, is assessed through a combination of quantitative and qualitative measures, enabling us to evaluate its impact on pupils' learning outcomes:

- **Assessment and Evaluation:** We utilise formative and summative assessments to track pupils' progress against year group objectives and to identify areas for improvement. Regular assessments inform our teaching and help us tailor support for individual learners.
- **Pupil Engagement and Attainment:** We monitor pupil engagement through observations, pupil surveys, and feedback sessions. We aim to achieve high levels of participation in lessons and extracurricular science activities. Our data indicates that pupils demonstrate improved attainment in science assessments, reflective of a deeper understanding of concepts.
- **Development of Scientific Skills:** We assess pupils' ability to apply scientific skills such as hypothesising, experimenting, observing, and concluding. This is evident through their participation in practical investigations and presentations of their findings.
- **Community and Parental Involvement:** We engage parents and the wider community in our science initiatives through workshops and science fairs, building a supportive network that values science education.

In conclusion, our Science education at Weare Academy is designed to ensure that all pupils not only meet but exceed their potential, developing into inquisitive and knowledgeable individuals prepared for a rapidly changing world. This intentional, inquiry-based approach and robust implementation align with Ofsted's outstanding criteria and contribute to the overall development of our pupils.