Weare Academy
C of E First School
All Can Achieve

Science

Intent, Implementation and Impact Statement

Intent

At Weare Academy, our Science curriculum inspires pupils to develop curiosity about the world around them through practical investigation, scientific enquiry and exploration. Rooted in our school vision, we aim to enable all children, regardless of background, ability or additional needs, to flourish and become the very best version of themselves. Through engaging, hands-on experiences, pupils develop the knowledge, skills and confidence to ask questions, investigate ideas and understand the importance of science in everyday life and the wider world.

Through the teaching of Science, we aim to develop learners who are:

- **Aspirational**, developing confidence to ask "Big Questions", investigate scientific ideas and recognise how science shapes the world around them. Learning about significant scientists and engaging with visitors inspires pupils to consider future opportunities within science and related careers.
- **Respectful**, developing an appreciation of the natural world while understanding the importance of sustainability, conservation and caring for the environment.
- **Curious**, asking thoughtful scientific questions, planning investigations and exploring concepts through first-hand practical experiences that develop a lifelong love of learning.
- **Resilient**, embracing challenge, learning from mistakes and refining ideas through scientific enquiry, recognising that investigation often involves testing, adapting and improving.
- **Kind**, working collaboratively during practical investigations, valuing the ideas and contributions of others while developing an understanding of how science can improve lives and communities.
- **Responsible**, carrying out investigations safely, making careful observations, drawing evidence-based conclusions and understanding the role science plays in creating a healthier and more sustainable future.

Implementation

To achieve our intent, we implement a rich and varied Science curriculum that adheres to the National Curriculum and reflects the values of our school community.

- **Curriculum Design:** Our Science curriculum is carefully sequenced and aligned with the National Curriculum. Learning is organised around the two key strands of Scientific Knowledge and Working Scientifically, enabling pupils to progressively develop both substantive knowledge and disciplinary skills. A spiral curriculum ensures pupils revisit important concepts, such as Plants and Animals Including Humans, with increasing depth and complexity throughout their time at Weare Academy. High-quality curriculum resources support teachers in delivering engaging, accurate and progressive science lessons.
- **Integration across the Curriculum:** Science is meaningfully linked with Mathematics, English, Geography, Design and Technology and Computing, enabling pupils to apply their learning across the curriculum. Pupils use mathematical skills to collect, present and interpret data, develop scientific writing through explanations and biographies of significant scientists, and make meaningful connections between science and the wider

world. Visits, visitors and practical experiences further enrich learning and provide real-life contexts for scientific enquiry.

- **Progressive Skill Development:** Clear progression pathways enable pupils to develop increasingly sophisticated scientific knowledge and enquiry skills from Early Years through to Year 4. Pupils learn to ask scientific questions, make predictions, observe carefully, plan fair tests, gather evidence, identify patterns and draw conclusions based on their findings. Teachers use explicit instruction, live modelling and guided practice to support learning, while oracy is developed through scientific discussion, collaborative investigation and the confident use of subject-specific vocabulary.
- **Assessment for Learning:** Assessment is an integral part of our Science curriculum and is used to inform teaching and support pupils' progress. We use SOLO Taxonomy to help pupils understand their learning journey, assess the depth of their understanding and identify clear next steps. Through SOLO questioning, self-assessment and teacher feedback, pupils reflect on their scientific thinking, refine their understanding and develop increasingly sophisticated scientific knowledge, enquiry skills and vocabulary over time.
- **Practical Investigation:** Practical enquiry is at the heart of our Science curriculum. Pupils regularly participate in hands-on investigations that enable them to apply their knowledge through observation, experimentation and problem-solving. Every unit provides opportunities for pupils to work scientifically by asking questions, making predictions, testing ideas and evaluating evidence, ensuring scientific enquiry is embedded throughout the curriculum.
- **Enrichment:** Our Science curriculum is enhanced through educational visits, visiting scientists, workshops and local partnerships that bring science to life. Opportunities such as visits to local farms, environmental learning and STEM activities help pupils understand how science is applied beyond the classroom while inspiring future aspirations.
- **CPD for Staff:** We invest in continuous professional development to strengthen teachers' subject knowledge and pedagogy in Science. Collaborative professional discussions, subject monitoring and engagement with current educational research ensure Science teaching remains ambitious, practical and of consistently high quality.

Impact

The impact of our Science curriculum is evident in the knowledge, skills and curiosity pupils develop throughout their time at Weare Academy.

- **Scientific Knowledge and Understanding:** Pupils develop secure scientific knowledge and confidently explain scientific concepts using accurate subject-specific vocabulary.
- **Working Scientifically:** Pupils demonstrate increasing confidence in asking scientific questions, planning investigations, making observations, analysing evidence and drawing conclusions based on their findings.
- **Pupil Voice:** Pupils speak enthusiastically about Science and confidently explain their investigations, justify predictions and discuss scientific concepts using increasingly sophisticated scientific language.
- **Curiosity and Enquiry:** Pupils develop a genuine curiosity about the world around them, demonstrating enthusiasm for investigation and a willingness to ask questions, explore ideas and solve problems.
- **Environmental Awareness:** Pupils understand the importance of sustainability, conservation and environmental responsibility, recognising how science can contribute to improving the world around them.
- **Preparation for Future Learning:** Pupils leave Weare Academy with the scientific knowledge, enquiry skills and confidence needed to continue their scientific learning and to understand the role of science in their everyday lives and future opportunities.

In summary, our Science curriculum equips pupils with the knowledge, enquiry skills and curiosity needed to understand the world around them. Through practical investigation, scientific exploration and meaningful real-life experiences, pupils become confident, resilient and reflective learners who are well prepared for the next stage of their education and for life in an increasingly scientific and technological world.