Science at Iceni Primary Academy

The important thing is to never stop questioning

Albert Einstein

Intent

At Iceni Primary Academy, our goal is to inspire every child with a deep curiosity and understanding of the world around them, making clear connections between science and their everyday lives. We believe that scientific knowledge is not only vital in its own right but also enriches learning across all subjects. Through our science curriculum, we aim to nurture a lifelong love of science, equipping our children with the knowledge, enquiry skills, and analytical thinking they need to explore, question, and succeed—both in school and beyond.

Implementation

At Iceni Primary Academy, our approach to science is rooted in providing children with meaningful, hands-on experiences that develop both their scientific knowledge and their sense of wonder about the world. We introduce systematic investigation gradually throughout the primary years, ensuring that children build essential enquiry skills that will support their learning as they progress to our secondary site.

We are committed to making science exciting and practical at every stage of a child's journey with us. Pupils explore the physical, chemical, and biological aspects of science, laying a strong foundation before moving on to more specialised disciplines in secondary school. Through practical activities, problem-solving, and real-life contexts, children deepen their understanding and develop the confidence to ask questions, investigate, and think critically.

Our science curriculum also encourages respect, care, and appreciation for the natural world and its phenomena. We want every child to:

- Be inspired by science and recognise its impact on everyday life.
- Develop curiosity and a sense of awe for the natural world.
- Ask thoughtful questions about their surroundings.
- Observe and enquire about phenomena in nature.
- Think creatively and make predictions.
- Solve problems and test their ideas.
- Recall and build upon key facts and processes from previous learning.
- Interpret and communicate their findings clearly.
- Evaluate results and explain their thinking to others.
- Apply scientific knowledge to real-life situations.
- Become confident, independent scientific thinkers.
- Understand how to stay safe and healthy, promoting a positive, healthy lifestyle.

Through this approach, we aim to nurture not only scientific knowledge and skills, but also a lifelong enthusiasm for discovery and learning.

Impact

At Iceni Primary Academy, we measure the impact of our science curriculum by the enthusiasm, confidence, and depth of understanding our children demonstrate. Our pupils leave the primary phase with:

- A secure grasp of key scientific concepts and vocabulary.
- Well-developed enquiry and investigative skills, enabling them to ask questions, plan and carry out experiments, and draw meaningful conclusions.
- The ability to think critically and solve problems, applying their scientific knowledge to real-life situations.
- A genuine curiosity and respect for the natural world, along with an appreciation for the role of science in society.
- The confidence to communicate their ideas clearly, both verbally and in writing.
- Readiness for the next stage of their education, equipped with the skills and attitudes needed to succeed in secondary science and beyond.

We regularly assess children's progress through observation, discussion, and practical work, as well as more formal assessments. Children complete a pre-unit assessment and then repeat this at the end of the unit. The progress made is evident. In Ky stage 2, we also ask children to show us the connections that they have made using 'Hexagons'.

Marking and Feedback

Work is marked according to the school marking policy by using
- Peer and self-assessment
- Oral feedback
- Written feedback

Inclusion

At Iceni Primary Academy, we are committed to ensuring that every child can thrive. We adapt teaching and learning to meet the diverse needs of all learners, including those with Special Educational Needs and Disabilities (SEND). Our inclusive approach ensures that children receive the support and resources they need to succeed in every aspect of their education.

Our staff work closely with families, external agencies, and specialists to ensure that provision is continually reviewed and refined. We believe that with the right support, every child can achieve their full potential.

Our SEND Information Report is available on our website. Please ask if you would like us to print a copy out.

EYFS

In the Early Years Foundation Stage (EYFS) at Iceni Primary Academy, we recognise that our youngest children are natural scientists—curious, eager to explore, and full of questions about the world around them. Our provision is carefully designed to foster this curiosity and lay the foundations for scientific thinking, in line with the *Development Matters* framework.

Through purposeful play, hands-on experiences, and high-quality interactions, children are encouraged to:

- Explore and investigate their environment, using all their senses.
- Ask questions and talk about what they notice, fostering communication and language skills.
- Make simple predictions and test their ideas through practical activities.

- Observe changes, patterns, and similarities in the natural world.
- Develop respect and care for living things and the environment.
- Use everyday language to describe what they see, feel, and find out.

These experiences support children's progress in the *Understanding the World* area of learning, particularly the "The Natural World" strand, and help them develop the characteristics of effective learning: playing and exploring, active learning, and thinking critically.

By the end of EYFS, our children are confident, inquisitive learners, ready to build on their early scientific experiences as they move into Key Stage 1.

Link to the National Curriculum

Science programmes of study: key stages 1 and 2

If you require further information, please do email iceniprimary@attrust.org.uk