Science Curriculum Statement

Principles of Science

- We work practically using different types of scientific enquiry
  - Observing over time
  - Pattern seeking
  - Comparative and fair tests
  - Identifying and Classifying
  - Research
- We ask scientific questions
- We use scientific equipment carefully and accurately
- We recall and apply our knowledge
- We think and evaluate our work.
- We learn, where appropriate, in the natural environment.
- We link these skills to how Scientists work in different jobs, both from the past and the present.

At Ecton Village Primary Academy, we strive to inspire the minds of our children to be inquisitive about the world we live in. We aim to provide a broad range of opportunities within our Science Curriculum for children's natural curiosity of the world around them to be explored and developed. We do this through working practically, allowing children to find out information for themselves; allowing children to ask questions, collect data and analyse their results; work in the natural environment and support each other with learning through working in groups to share ideas. Learning is engaging, to ensure that scientific knowledge and vocabulary is retained and children can build on this knowledge as they develop as young scientists through their time at Ecton Village Primary Academy.

We recognise that in a world that is ever increasingly dominated by Science and Technology, it is important for our children to have the scientific knowledge and enquiry skills needed to understand and thrive in the world they live in. Alongside our Science Curriculum, we offer children a chance to explore through a variety of practical themed STEM workshops. School trips further enthuse our learners, as they are able to see phenomena, which they would be unable to see within the primary classroom.

Intent

At Ecton Village Primary Academy, we strive to inspire a lifelong love of science for our children, where children are curious about natural phenomena in the world around them. Science has changed our lives and will play a vital part in the world's future prosperity. Teaching Science enables children to understand and question the world they live in and prepare them for future advances. Through our Science Curriculum, children's curiosity of the natural world is nurtured and children are taught to work scientifically to broaden their understanding of the world around them, developing their knowledge and enquiry based learning through identifying and classifying, pattern seeking, research, observations over time and fair and comparative testing (IPROF). Through the Science Curriculum, children are taught science in the three key scientific areas of Chemistry, Physics and Biology and substantive and disciplinary knowledge is extended as children progress through the school, along with scientific vocabulary linked to these areas of learning. We are committed to providing a stimulating, engaging and challenging learning environment for all of our children.

Implementation

At Ecton Village Primary Academy, we follow the Science units on the National Curriculum using the CUSP curriculum plans to base our lessons on. The CUSP curriculum is, where relevant, adapted to our setting so that children can explore our locality to enhance their learning, provide opportunities for the children to ask their own enquiry questions and develop Science Capital. Due to mixed year group classes, children are taught these units on a 2-year cycle.

The CUSP curriculum carefully plans enquiries based on the five enquiry types of identifying and classifying, pattern seeking, research, observations over time and fair and comparative testing (IPROF). The knowledge needed to carry out these enquiry types builds as children progress through the different key stages through the knowledge the children are taught to work scientifically, including making predictions, understanding variables, gathering and presenting results, interpreting results, drawing conclusions and evaluating.

Children have a learning question for each lesson, with specific vocabulary taught to support the substantive knowledge taught for the lesson. Once this concept is grasped, children then apply their learning through an enquiry within the lesson and then a challenge activity to deepen their understanding of the concept further. When appropriate, children learn outside in the school grounds and the local village.

The CUSP resources are further supported through the use of Explorify, providing a range of different activities for children to access to support their learning further. Many of these activities are completely orally, developing children's oracy and use of vocabulary within the science curriculum.

Our Science curriculum is enriched further through regular STEM days, trips and visits and celebrating British Science Week. We celebrate the achievements of scientists, both past and present, and share science appearing currently in the news.

Impact

Our Science Curriculum is carefully planned so that there is clear progression as children go through our school. We aim to have an increasing number of children leave us having achieved age related expectations in science. The impact of our science curriculum is assessed through regular quizzing and reteaching where necessary. Our curriculum is also designed to regularly revisit, ensuring children remember previously learned concepts. We want our children to leave Ecton Village Primary Academy with the substantive and disciplinary knowledge needed to support them as they move in to the next phase of their education.