What does Science look like in our school?

Intent

What does it mean to be a Scientist at St Mary and St Peter?

Our Science curriculum at St Mary and St Peter is designed to inspire children to be curious about the world in which we live and to know that Science is all around us. We endeavour for our children to value Science in our society and to see its relevance in our modern world especially with regards to environmental issues. We want our children to know that they can make a difference to the world and that it is important to understand scientific ideas in order to make well informed decisions as a future global citizen. We want our children to be enthused with a lifelong love of Science, whether as a career or through personal interest.

Implementation

Our Curriculum and High Quality Resources	
EYFS	In Reception we foster the children's curiosity about the natural world through hands-on activities that use their senses to make observations and explore similarities and differences between seasons, materials and the natural world. We follow the new Development Matters guidance.
KS1	In KS1 we follow the National Curriculum to build upon the children's natural curiosity for seasonal changes, materials, plants and animals including humans. We provide a range of first hand practical experiences to encourage them to ask questions and help them to develop their understanding of scientific ideas through introducing them to scientific enquiry skills. Children develop their key scientific vocabulary in their communication and start to spell and read these words.
KS2	In KS2 we follow the National Curriculum and build upon the skills learnt in KS1. In lower KS2 pupils begin to develop their ideas about functions, relationships and interactions. They begin to select for themselves the scientific enquiry skills needed to answer questions that they have come up with. They draw simple conclusions that they can talk about using scientific vocabulary and begin to use this in their writing. They read and spell scientific vocabulary with confidence. In upper KS2 we dig deeper into a wide range of scientific ideas. Pupils analyse functions, relationships and interactions more systematically. We encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. We look at how scientific ideas change over time and what this means for the scientific ideas that we currently have. Pupils draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings

Impact

At St Mary and St Peter we are STARS:

SAFE- We learn to handle equipment safely and how to lead healthy lifestyles.
TRY- We are confident to try new ideas as we know that mistakes can be key to new discoveries.
ASPIRE- We learn about inspirational scientists from history and the modern world as well as inviting in scientists from our local area so that our children can see a career in science as a real possibility.
RESPECT- We respect the role of Scientists in our society and view them as essential in tackling environmental issues.

Feedback and Assessment

Children receive precise and positive verbal feedback regarding their skills and next steps when appropriate.

Assessment and Tracking Progress	
EYFS	In EYFS we use the Development Matters Framework to assess children every term to inform their next steps.
KS1 and KS2	In KS1 and KS2 we assess children after every topic to see who is working towards and working at the national expected level. Double page spreads are used at the end of a unit for pupils to show what they have learnt throughout the topic. We also identify children who are working at greater depth in Science. We use this formative assessment to inform the next steps for children with a particular focus on SEND and disadvantaged pupils. This information is passed on to the next teacher to ensure progression across the year groups.

Provision for those children who need additional support

Science at St Mary and St Peter is inclusive and whilst it is important for children to transfer their English and Maths skills to their Science lessons, all children are given the opportunity to demonstrate their understanding of Scientific ideas and skills which is not reliant upon their writing and mathematical ability. Language skills provide the foundation for children to show what they know and teachers plan a range of techniques for children to express their understanding.
For children who do need additional support, teachers scaffold their lessons to help all children to access the learning objective. This includes the pre-teaching of vocabulary, use of additional adults, 1:1 support. more time and recording in a way that suits the needs of the individual.