



Science

Intent

At Holy Family Catholic Primary School, we want to give children a curriculum that promotes a passion and curiosity for learning where 'Only the Best is Good Enough'. It is our vision that each child fulfils their potential, regardless of their background or circumstances, in a safe, stimulating and caring environment. We aim to develop a love of learning inspired by quality teaching, foster high aspirations and encourage positive self-esteem.

Our Curriculum is built around the National Curriculum, however this is enhanced and enriched to reflect the children and community we teach in.

In support of this, at Holy Family Primary School, our Science curriculum aims to fulfil the requirements of the National Curriculum for Science; providing a **broad, balanced** and differentiated curriculum; ensuring the progressive development of knowledge, skills and vocabulary and for the children to develop a **love of Science**.

It is our intention that Science builds on children's natural curiosity of the world around them.

We endeavour to develop our children's scientific knowledge and understanding through the specific disciplines of biology, chemistry and physics. They develop their understanding of the nature, processes and methods of Science through various types of enquiry that enable them to answer scientific questions about the world around them. We ensure our children are armed with the scientific knowledge required to understand the uses and implications of Science, today and for the future, ultimately making them **thankful for the world we live in**.

Implementation

All children will receive Quality First Teaching, which is provided through a high-quality Science curriculum that embraces **individual** needs and mental and physical well-being in a **safe** and **enriching** learning environment. Children are supported in developing a progressive scientific vocabulary which is scaffolded through classroom displays and knowledge organisers to enable and encourage **independent learning**.

Our knowledge organisers equip our children with key learning relating to each unit of work, along with key vocabulary to support them in learning and remembering more. Through a range of assessment activities, our children are provided with ample opportunities to revisit key knowledge and vocabulary across year groups and key stages.

To support learning and retaining of subject specific ideas and vocabulary, each classroom uses an agreed format for display boards to showcase the relevant topic vocabulary, children's work and provide them with reference points to secure learning.

The displays also include a copy of our 'principles for teaching science', which were set up and reviewed with the children and staff. When teaching science, teachers should follow



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these principles to ensure their learning is **engaging, broad and balanced**. It also allows us to use a variety of teaching approaches and follow children's interests.

Science provides excellent opportunities to enhance the learning of more able pupils through planning lines of enquiry, asking opened ended questions, analysing results and drawing conclusions based on scientific findings.

At Holy Family School, we provide a variety of opportunities for science learning inside and outside the classroom. Learning outside of the classroom, especially in our local area is an essential part to learning science. It is vital that children observe and immerse themselves in their local environment to apply their learning practically to real-life situations. This also helps pupils to understand how to **nurture** their local environment, treating it with **care, respect** and **compassion**.

Assessment

During Key Stage 1 and 2, there is formative and summative assessment of Science according to the National Curriculum Programme of Study for Science. Formative assessment of children's learning is a continuing monitoring of children's knowledge, understanding and skills against learning objectives for each unit of work. We support this form of assessment by comprehensible and direct lesson plans which set out a clear expectation for the children, levels of support required to meet these expectations and ways in which these may be exceeded. We also incorporate a range of activities to enable children to revisit and recap key information. Formative assessment is used to inform differentiation, support and challenge during lessons.

Summative assessment of children's learning in Science takes place at the end of each unit of work (usually every half term). Pupils complete a topic test from the Headstart Primary Science assessment program. Teachers record the results of these assessments on the end of half term assessment sheets: "working below" the outlined objectives, "working at" or "working above expectations". This information is recorded as percentages from each class and given to the Science Lead who collates and analyses the data.

Working Scientifically

The National Curriculum for Science advises that pupils should be taught practical scientific methods, processes and skills through the teaching of the programme of study content. Therefore, it is anticipated that children will have undertaken appropriate practical procedures within their lessons to support their responses to the HeadStart Science progress tests. Each test incorporates assessment of working scientifically, but it is expected that this aspect is carried out mainly in practical science lessons.

Furthermore impact of the curriculum is also tracked through a variety of monitoring methods such as: book scrutinies, lesson visits and pupil voice.



Intended Impact

Our Science curriculum is high quality, well thought out and is planned to demonstrate progression. We focus on progression of knowledge, skills and use of vocabulary. Within Science, we strive to create a supportive and collaborative ethos for learning by providing **opportunities** for children to question and investigate, to discover answers for themselves and take their learning in a direction they are interested in.

We measure the impact of our curriculum through the following methods:

- Lesson observations and pupil interviews will show that children enjoy their Science lessons and are confident when talking about what they know and remember
- Children will have a wide scientific vocabulary that they are confident using within their writing and when discussing Science
- Children of all abilities will be able to succeed in all Science lessons because work will be appropriately scaffolded
- Book Scrutinies will demonstrate that the work children are producing fulfils the requirements of the National Curriculum and is of a high standard
- Evaluation sheets completed by the teacher after each topic will show that the majority of children are working in line with or above age related expectations
- Assessing children's understanding of topic and the linked vocabulary through warm ups, revisits and end of topic Science tests
- Using dialogic learning tasks to assess children's understanding