SACRED HEART CATHOLIC PRIMARY SCHOOL

Science Curriculum Intent, Implementation and Impact Overview

The intent of our Science curriculum is to deliver a curriculum which is accessible to all and that will maximise the outcomes for every child so that they know more, remember more and understand more.

As a result of this curriculum they will:

- Increase and develop their scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Develop their understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
- Develop the scientific knowledge required to understand the uses and implications of science, today and for the future.
- Develop reasoning skills and scientific vocabulary to articulate scientific concepts accurately and precisely.
- Develop a sense of excitement and curiosity about natural phenomena.
- As part of the caring community of Sacred Heart Primary School, increase their understanding of the role of science in helping to tackle environmental and health issues both in our local community and around our world.

Sacred Heart School has identified **key intentions** that drive our Science curriculum and these are:

Intent	**Implementation**	**Impact**
To build a Science curriculum which develops learning and results in the acquisition of knowledge and skills which enable children to observe, discuss, classify, compare, enquire, investigate, fair test and record and interpret their findings. Children will know more, remember more and understand more. To design a Science curriculum and scheme of work with appropriate subject knowledge, skills and understanding as set out in the EYFS and National Curriculum Science Programmes of study. To fulfil the duties of the National Curriculum whereby schools must provide a balanced and broadly-based curriculum which promotes the spiritual, moral, cultural, mental and physical development of pupils and prepares them for the opportunities and responsibilities and experiences for later life.	• Knowledge Organisers Each unit of work is supported by a Knowledge Organiser which details the key facts, vocabulary and skills for each unit. This is sent home at the beginning of the unit, allowing children to constantly recap and share their learning. • Subject specific vocabulary Scientific vocabulary is identified and reinforced through knowledge organisers and highlighted to the children at the beginning of lessons and revisited through class assemblies and knowledge quizzes. • Big picture and regular review. New science learning is put into the context of the big picture of science learning throughout school, and a regular review of immediate previous learning in the subject. • Provision in EYFS Children are given a secure grounding in the Prime Areas of learning, ensuring they have a	Children will know more, remember more and understand more about science knowledge and science concepts. Children will understand the nature, process and methods of science for each year group. Children will understand some of the uses and implications of science, today and for the future. Children will describe processes using technical terminology accurately and express enthusiasm for science learning. Children will take part in discussions and activities to understand how science can help our the wider community and planet and will be keen to support and promote these scientific initiatives. The large majority of children will achieve age related expectations in Science and this is monitored and advanced by: • Frequent feedback given to children about how they are doing and how they

	good foundation on which to build through the specific areas, including Understanding the World. Areas of provision are enhanced to ensure vocabulary understanding and extension, and develop understanding of life processes and living things, materials and their properties and physical processes. • Books, Photographs and Videos Secondary scientific sources such as books, photographs and videos are used for research in both science lessons and other subjects with cross-curriculum links. Children will have constant access to a wide variety of subject specific non-fiction books, available in science lessons, other lessons and in the class book area as well as relevant fiction. • Approaches to teaching Most of the learning about science is done through the use of first-hand practical experiences. Scientific enquiry includes observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing and researching using secondary sources.	can improve throughout the units of work. • Questioning used both to assess and to advance children's learning. Children are actively involved in their own learning through, for instance, discussion and investigations with peers and teacher; assessing, reviewing and reflecting on their own understanding. • We employ a wide range of strategies to encourage connections between subjects, enhance recall, and increase retention of information. • Children's progress is measured against a progression of skills and assessment strands at the end of every themed unit of work. • Progression statements are given for each year group, covering all the expectations of the Programmes of Study. Statements are clearly organised so that teachers can see how pupils are expected to progress through the key stages.

	A wide variety of teaching approaches are used in science lessons to ensure children make good progress, and all learning styles are catered for. Class teachers ensure there is a good balance of whole class, group work and individual learning in science lessons • Research Children will be asked to research aspects of their learning independently. This allows the children to have ownership over their curriculum and lead their own learning in science. • Basic skills English, Maths and ICT skills are taught during discrete lessons but are revisited in science with a subject specific slant so children can apply and embed the skills they have learnt in a purposeful context. • Cultural Capital We plan termly visits, and/or enrichment opportunities to provide first-hand experiences for the children to support and develop their learning.	• End of Unit assessments are carried out by class teachers at the end of every unit of work to identify attainment against specific criteria. These assessments are completed based upon a 'best-fit' approach with judgements made from a range of work activities done throughout the unit and **not** on a single assessment 'test' activity. • Teachers collate the information they have gathered over the unit to complete a summary sheet. • The subject co coordinator completes the whole school summaries. This is used to compare significant groups within the school and identify any trends.