



Science at St Wilfrid's CE Primary School

Curriculum Rationale

At St Wilfrid's CE Primary in Calverton, we develop our science curriculum to inspire curiosity and wonder about the natural world while fostering an understanding of how science shapes our past, present, and future. Our goal is to ensure pupils gain a deep understanding of Biology, Chemistry, and Physics, while also developing a broad range of scientific and transferable skills. The curriculum is inclusive and meaningful, allowing all pupils to experience the joy of science and see connections between their learning and their lives outside the classroom. Through studying science, pupils gain an appreciation of how knowledge and skills can address global challenges. Our curriculum promotes critical thinking and encourages pupils to question the "hows" and "whys" of the world around them. We focus on:

- Developing scientific knowledge and skills across Biology, Chemistry, and Physics.
- Fostering curiosity and excitement about the world, exploring both familiar and new phenomena.
- Addressing misconceptions and uncovering scientific truths.
- Ensuring continuous progression by building practical and investigative skills throughout the curriculum.
- Encouraging critical thinking, the ability to ask insightful questions, and analysing evidence.
- Developing scientific literacy through the use of specialist vocabulary.

Curriculum Content and Sequencing

At St Wilfrid's CE Primary in Calverton, our science curriculum is structured around key strands that run throughout: Biology – studying living organisms and vital processes. Chemistry – understanding matter and its properties. Physics – exploring how the world around us 'works'. Working scientifically – using scientific processes and methods to answer questions about the world. Science in action – examining the uses and implications of science throughout history and its future potential. Our curriculum ensures a spiral approach, where essential knowledge and skills are revisited with increasing complexity, allowing pupils to build on their prior learning. The 'Science in action' strand is woven throughout to make science concepts and skills relevant and inspiring for their futures. Pupils engage with key knowledge and concepts, using specialist vocabulary to deepen their understanding. Rather than being taught separately, the 'working scientifically' skills are integrated into the curriculum alongside conceptual understanding. This provides regular and meaningful opportunities for pupils to develop their scientific enquiry skills.

Cross Curricular Links inc. SMSC

Maths 1. Classification/Sorting 2. Measurement
3. Statistics

English newspaper report, recounts, persuasion, biographies, fact files, class book linked with science theme.

History examples- space exploration, famous scientists
DT STEM projects such as moving toys, moon landers structures and mechanical fair games.

Computing example inputting and analysing data using excel

Support and Training

Opportunities for shared planning and teaching across school.

CPD teacher videos through the scheme of work.

Well-stocked resource cupboards to ensure high-quality, take care work can be produced.

Big Ideas

At St Wilfrid's CE Primary, we promote DEIB by introducing pupils to a diverse range of famous scientists from different backgrounds. This helps them understand how science has been shaped by individuals from various cultures and experiences. Pupils also learn about key scientific inventions and their impact on the world, recognising how diversity drives innovation. By inspiring all pupils to see themselves as potential future scientists, we aim to contribute to the UK's STEM sector, fostering a sense of belonging and encouraging diverse contributions to science.

Culture of Opportunity

Forest Schools
British Science week- external providers
Visits to Science museums such as
Leicester Space Centre

Progress and Assessment

Impact is constantly monitored through both formative and summative assessment opportunities.
Verbal feedback and opportunities for rich discussion in every lesson also provide teachers with informative assessment for learning opportunities to adapt and monitor learning outcomes.
Attainment and progress is measured across the school using end of unit tests, which also allow us to address any gaps in knowledge.