



St Paul's Catholic Primary School

'Do Everything with love.'

Science Statement

INTENT

At St Paul's Catholic Primary School our aim is to encourage pupils to recognise the presence of science in the world around them and its significance in their daily lives. We believe that the teaching of science and the development of both scientific knowledge and the development of the skills involved in scientific enquiry is an essential aspect of a quality education. This will ensure our students are thoughtful, logical thinkers that are curious about the world around them and ready to take their place in an ever-developing world.

Our intent is to provide both an ambitious and deep learning and experiences in all areas of Science, planned and taught through the National Curriculum. We aim to provoke and nurture curiosity and promote a lifelong interest and awareness of how science can be used to understand and explain natural phenomena, and also recognition of the potential for human impact on the world God has created.

We aim to show pupils how Science is intrinsically linked with knowledge gained in other curriculum areas to maintain their inquisitiveness and reinforce their understanding of scientific phenomena and advancements in the world around them. Therefore, where possible, links have been made between Science and other curriculum subjects being taught at the same time. These links will ensure a deeper understanding and give the children real-life context for their learning. At St Paul's, Catholic Social Teaching is an integral part of our school ethos. Through their Science learning, which will be intrinsically linked with these Catholic values, the children will grow in their faith and understanding of themselves, others and the world around them.

Pupils will learn how to communicate their findings from scientific research and investigation and will be encouraged to form their own opinions and respect the opinions of others. Children will be provided with opportunities to support their communicative skills as well as continually build on their knowledge of the methods and uses of science; this will be achieved by National Curriculum topics as well as the implementation of annual longitudinal studies.

At St Paul's Catholic Primary School, we have developed our Science curriculum with the intent that our children will:

- Be given opportunities to develop their own lines of enquiry through formulating and refining questions
- Develop the ability to think critically about scientific questions and effectively communicate their ideas
- Support and challenge their own views and those of their peers, using the results of scientific investigations as supporting evidence
- Develop an ability to plan effectively and draw conclusions
- Make links between their Science learning and the wider curriculum
- Become independent learners and thinkers
- Develop their growth mind-set skills through working with others and taking on challenges

IMPLEMENTATION

Our Science curriculum has been designed, using the National Curriculum programme of study, to provide a coherent learning journey from Reception through to KS2, which identifies the important concepts and procedures for pupils to learn and allows pupils to build on and develop their knowledge of these over time. Science is taught across both key stages for two hours each week.

Pupils gaps in their knowledge and understanding is planned for by ensuring that curriculum content is secure before more demanding content is taught. In this way, personalised planning ensures that pupils learn how knowledge connects in Science by having the opportunity to 'see' how it builds on an underlying conceptual structure, whilst applying skills these skills to different types of scientific enquiries. Where possible, we make links between Science learning and other curriculum areas. Topics requiring certain mathematical skills are planned in coherence with the Maths curriculum and we make any

similarities and differences between the two subject areas explicit to pupils. Real-life contexts for learning are also used where appropriate to bring together STEM skills.

Across the school, children will be given opportunities in all Science topics to work scientifically and plan, carry-out and evaluate investigations. As well as present their findings in different ways. Children will be aware and involved in all aspects of working scientifically process and will use working scientifically symbols to signpost when each aspect has been used in their work. Long term plans map out both the knowledge and working scientifically skills that will be taught during each topic and each topic has a range of hands-on and exciting learning opportunities.

The subject leader for Science will monitor, evaluate and review the implementation of the subject throughout the school. This will provide opportunities for sharing good practice as well as forming the basis for further improvement, with a key focus on ensuring the assessment of Science learning is effective.

Science will take the following structure:

- Two hours of quality teaching per week
- A blocked curriculum structure to ensure coverage and progression in scientific skills, with each half term being dedicated to a discrete topic
- A year-long Longitudinal Study involving one lesson per half term
- Curriculum maps which states the NC objectives that are being taught for each half- term
- Links to other subjects and real-life situations where possible
- A yearly Science Week/Day where all learning is focussed on Science and celebrated across the school
- Opportunities for Science trips, through links with other local schools
- Visitors to support with teaching of Science and STEM

Coverage is in-line with the National Curriculum and matches the below table:

Year Group	Plants	Animals including humans	Use of everyday objects and changes of materials	Seasonal changes	Living things and their habitats	Rocks	Light	Forces and Magnets	States of Matter	Sound	Electricity	Earth and Space	Evolution and inheritance
YR													
Y1													
Y2													
Y3													
Y4													
Y5													
Y6													

IMPACT

Children will become increasingly critical in their thinking and will be able to use that to independently plan enquiries in order to answer questions posed to them or ones that they have asked themselves. Their curriculum and learning will be, so far as practicable, devised and planned in such a way as to take into account their prior learning, individual needs and curiosity. Children should leave St Paul's Catholic Primary School with love of science, a broad understanding of the content covered and a strong awareness of the importance of science and scientists in a modern society. Visits and other events will be used to further enhance the learning experience; the quality and impact of these visits will be monitored and updated by the subject leader.

When leaving St Paul's Catholic Primary School our children will:

- Have developed an understanding of how to work scientifically and safely
- Progress will be seen within pupil workbooks and within the results of assessments taken, showing that over time, pupils know more, remember more and are accessing increasingly sophisticated topics
- Leave St Paul's Catholic Primary School with the skills necessary to appreciate that there are still questions that science cannot yet answer
- Be ready to continue their Science education at their chosen secondary school

Commented [Z1]: Science symbols
Science week
Opportunities to work scientifically
Science trips

Commented [Z2]: If this is implementation it needs to be read as it happens.....

