



Here at St Paul's CE Primary School, we are proud to provide excellent care and outstanding education for children from three to eleven years old in our unique, picturesque setting. Our Christian vision is at the heart of all we do, and we endeavour to provide a personalised curriculum to each and every child.

Our small class sizes allow us to give each child a high level of support and guidance. We take care to ensure that we know every child's starting points and we adapt our teaching to meet their needs, meaning every pupil is experiencing challenge and success.

Our Science curriculum is mapped out to ensure awe, wonder and a natural curiosity that is bespoke to our children, supports their journey to becoming 'Scientists' and provide opportunities for them to learn about our world, making sense of it and using investigation and exploration.

Our Science Curriculum

"It seems to me that the natural world is the greatest source of excitement; the greatest source of visual beauty; the greatest source of intellectual interest. It is the greatest source of so much in life that makes life worth living." Sir David Attenborough

At St. Paul's, we believe and value children's natural curiosity and care for the world around them. Science is taught through a practical, enquiry-based approach using skills the children will utilise throughout their lives. Science lessons, at St Paul's draw on the children's natural curiosity and love of learning through asking questions, observing and predicting, using scientific vocabulary, having opportunities to explore and apply their learning, and making links to previous learning and to real-world experiences.

"The important thing in science is not so much to obtain new facts as to discover new ways of thinking about them." William Lawrence Bragg, Nobel Prize-winning Physicist.

Science at St. Paul's links with our Christian ethos and focuses on the importance of stewardship and building knowledge of human impact and responsibility of our environment and world.

Intent

- We want Science to be an inspiring and engaging subject where children are encouraged to develop their natural curiosity: to ask questions and find answers through scientific inquiry.
- A science curriculum that is designed to enhance scientific principles of awe and wonder, inquiry, and scientific vocabulary throughout biology, chemistry, and physics.
- Science units that are embedded throughout the curriculum for children to revise, build, and apply their knowledge during their learning journey at St. Paul's. This ensures an accurate foundation of scientific knowledge, wide vocabulary, and skill. Cross- curricula teaching and learning through real-life experiences, scientific experiments, and learning about past and present scientists.
- To inspire, engage, and motivate young scientists.

Implementation

- The science curriculum includes real-life experiences for example a trip to the Liverpool World Museum / Chester Zoo / Local Farms.
- Opportunities to observe the natural world are used in Forest School sessions.
- Science should be taught on a weekly basis.
- Lessons should start with an opportunity to use scientific language – Explorify is a website that contains hundreds of resources including short-burst activities that allow children to discuss, hypothesis and explain what they understand about a specific science topic.
- The lesson should include around 15 minutes of explanation and introduction to the new learning, followed by an activity that can allow the children time to work scientifically and demonstrate what they are learning.
- Finally, 10 minutes of the lesson should be spent allowing the children to share what they have learned, or to discuss challenges or difficulties with the activity.

- At the end of the unit, the teacher should use an appropriate method of assessment which will allow the children to demonstrate progress made with their understanding.
- Presentation of written work should be of a high standard, with science books focusing more on recording dialogue, pupil's voice and practical experiences.
- Most of the science units allow opportunities for demonstrating all 5 working scientifically enquiry skills: Investigating, classifying, grouping, observing over time, fair and comparative testing, pattern seeking and research using secondary sources.
- Scientists in that chosen field and their findings will be celebrated in line with the topics.
- Sharing science news, keeping new discoveries relevant and exciting.

Impact

We want all of our pupils to develop a love of learning and enquiry; to plan, to question, to think critically and to evaluate and reflect. We want them to appreciate that learning and understanding comes when we demonstrate critical thinking, resilience, endeavour and perseverance. We want children to understand the impact their actions have on the natural world and how working scientifically can solve the climate crisis.

We measure the impact of the science curriculum by:

- Assessing children's understanding of topic-linked vocabulary before and after the unit is taught.
- Using dialogic learning tasks to assess understanding
- Images and videos of practical learning
- 'Pupil voice' present in books and on displays.
- Work self-assessment and team moderation with opportunities for dialogue between teachers to discuss and understand their class's work.

The science leader will continually monitor the impact of science throughout the school in order to ensure progress of knowledge and skills is being taught.

In addition, the science leader will continue to access CPD in order to identify new activities and learning opportunities that will keep the subject fresh, exciting and relevant for an ever-changing world.