



This statement, and our Science intent and curriculum, has been developed by our subject leader for Science in discussion with our teaching staff team and our Teaching, Learning and Standards Governors Committee.

This curriculum statement should be read alongside

- our school vision statement
- our Teaching, Learning and Assessment Policy and our Policy on Marking and Feedback to Children
- our published curriculum overview
- our 'curriculum pack' for Science, which includes details of the agreed curriculum for Science at Christ Church, including our skills and content progression documents

Intent of our Christ Church Science Curriculum

At Christ Church School we aim to instil a love of Science within our pupils. Science at our school supports our vision of *inspiring life in all its fullness* through its contribution to a wide breadth of curriculum and we believe that high-quality Science education is essential for understanding and respecting the world around us. Science in our school aims to encourage curiosity and develop a sense of excitement, in order to make sense of the world in which we live and give children a strong understanding of the uses and implications of Science, today and for the future.

Our Science curriculum is designed with high expectations in mind and provides opportunities for children to acquire the knowledge and skills they need to make progress throughout their time here at Christ Church and prepare them for when they move on to secondary science. The curriculum covers the specific disciplines of Biology, Chemistry and Physics and these are made explicit to children in upper Key Stage 2.

The key skills needed to work scientifically are embedded in all our Science teaching and build sequentially through the school, ensuring that all children have the opportunity to question, observe, discover, conclude and evaluate (essentially an understanding of the nature, processes and methods of science). Children are taught how to use scientific equipment by working practically throughout both Key Stages and we aim to encourage the children to be enquiry-based learners who can pose their own questions and seek answers to these. Science is taught across the curriculum wherever possible, including within additional enrichment activities, providing essential exposure and understanding for the children of how Science impacts our daily lives.

Aims of Science within the Primary National Curriculum

The National Curriculum for Science aims to ensure that all pupils

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop 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
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

(National Curriculum 2013)

The Curriculum

All pupils are taught the content and skills as set out in the Early Years Foundation Stage (EYFS) document (in particular the Knowledge and Understanding of the World area of learning) and then the programmes of study in the National Curriculum.

Our Science 'curriculum pack' includes

- further details about what we mean by 'working scientifically' and scientific 'enquiry types' at Christ Church
- our skills progression document, detailing specific skills to be taught from Reception to Year 6 in the following areas of working scientifically:
 - questioning and planning
 - measuring and recording
 - concluding

- evaluating
- our detailed content progression document, setting out how the content in each area of science builds on and towards the content taught in other year groups
- overview plans for each science topic taught showing how the content and skills link together through a sequence of lessons

Additional information specific to Science

Resources, teaching and continuing professional development

The school holds and purchases a wide range of Science equipment and consumables, including non-fiction books.

Science across the school is planned and taught by class teachers.

The Science Subject leader attends appropriate training and/or networks for the subject area, including one led by the Francis Crick Institute. Training is then shared with other staff through staff meetings or team teaching. The school is also a member of the professional association for Science.

Health and Safety

Teachers are responsible for planning safe activities for Science. This is achieved by:

- selecting appropriate resources and materials
- teaching children how to use resources and equipment safely
- making sure the children understand the importance of safety procedures
- reminding the children at the beginning of each lesson of the correct use of resources and equipment
- checking equipment for defects at the beginning of each session and making sure all equipment is used in the classroom under adult supervision
- carrying out and following a specific risk assessment for activities, where needed
- following CLEAPSS safety guidance, where appropriate

Teaching Science in the second half of the year

Our Science curriculum is delivered over the second half of the academic year to enable children to be immersed in one area of study. It provides children with better opportunities to recall learning and make links between concepts, knowledge and skills. For SEN and disadvantaged children, this proves to be effective in providing an equitable experience as the learning is not spaced too far apart and therefore makes learning and remembering easier and more successful. In organising the science curriculum like this, curriculum enrichment opportunities also become more relevant, meaningful and more purposeful; children are able to transfer knowledge from trips and visits quickly to their work in the classroom and vice versa. Continuing professional development can also be focused in this part of the year and therefore has a greater impact, as do sharing opportunities, such as when children share their science learning with the rest of the school in their class assemblies.

Some science investigations, which require a longer time period, such as observations of weather and seasonal change, continue throughout the whole school year. Key scientific skills, such as taking measurements, observing closely and interpreting data, are used in other subject areas throughout the year in order to ensure children recall and use these skills over the other half of the school year. Spaced retrieval activities focused on key learning from previous topics take place throughout the year to recap and refresh learning.

Enrichment: Wider Opportunities

The school provides a range of wider opportunities to enrich the Science curriculum provided in the classroom, for example:

- trips to supplement learning in the classroom and provide further scientific investigation opportunities (past trips have included to the Science Museum, Natural History Museum, Hampstead Heath Education Centre)
- after school clubs, e.g. Tech club
- workshops in school led by experts such as doctors, dentists or facilitators from the Francis Crick Institute
- links with the Francis Crick Institute for resource borrowing and workshops, including one at the Crick attended by Year 5 students
- cross-curricular opportunities where science learning is applied in other subject areas or vice versa

Review

This statement will be reviewed by the school's Science Subject Leader every three years to ensure that it is a reflection of current best practice.