St Paul's
C of E Primary School

A place to belong

Science Policy

Chair of Governors Approval:	**Tom Mitchell**
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Reviewing Committee:	**Curriculum**
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St Paul's C of E Primary School
A Place to Belong

Our Christian Vision

Our school is a family where everyone feels safe, happy and valued, and is supported to achieve their full potential.

We will develop compassionate and caring individuals who depend on one another, are highly motivated, and have a life-long love of learning in preparation for the future.

Our Core Values

All that we do is underpinned by the core Christian values of *Family (Koinonia), Compassion, Perseverance and Forgiveness*

"Though we are many, we form one body, all joined together as members of the whole. We each have different gifts, according to the grace given to each of us. We must use them wisely."
Romans 12:5-8

Science Policy

Aims

- To nurture and develop confident and inquisitive scientists, ready for the 21st Century.
- To provide a stimulating and challenging range of teaching and learning experiences and environments which present opportunities for acquiring knowledge, skills and understanding of scientific concepts.
- To provide opportunities for the development of creativity through science across the curriculum and give pupils real, purposeful opportunities.
- To develop partnerships with external agencies which will enhance the experience of our learners.
- To teach subject knowledge in science through practical activities which embed pupils' skills to work scientifically.

Science

Science is covered discreetly but linked to our cross-curricular learning. The science long-term plan is based on the National Curriculum objectives and is linked to the Cornerstones projects where possible. The delivery of science means that children in each year group have clear progression of knowledge and skills and this is identified through documents that can be found on our school website in the 'Our Curriculum, Science' section.

Scientific enquiry is also delivered through the curriculum and is linked to each project. In line with the National Curriculum, pupils will be taught to 'work scientifically' and given opportunities to do so through each project.

We aim 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 scientific enquiries that help them to answer scientific questions about the world around them.

- Children are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

To support the well-structured and progressive curriculum, the school makes use of a range of engaging resources such as those provided by Science, Technology, Engineering and Mathematics (STEM), Association for Science Education (ASE) and Explorify. Classes across school take part in STEM workshops run by their ambassadors to support the teaching of science.

We are committed to outdoor learning and offer a range of practical, outdoor learning experiences including lessons at our very own school allotment. Each year we celebrate National Science week and offer children an engaging curriculum week based on enrichment workshops, trips and visitors into school.

Teachers plan for the teaching and learning of science through a robust LTP, which ensure the progression of skills and knowledge across the whole school and ensures progress and challenge for all pupil groups. Enrichment partnerships are careful planned and arranged to raise and support children's love of science. Classes across the whole school take part in STEM workshops run by their ambassadors to support the teaching of science, where they can also aspire to different careers in STEM.

We are committed to outdoor learning and offer a range of practical, outdoor learning experiences, including lessons at our very own school allotment and Community Gardens.

Each year we celebrate STEM and offer children an engaging, practical curriculum week based on enrichment workshops, trips and visitors into school. Children are given various opportunities to develop their working scientific skills through a variety of exciting scientific enquiries.

Teaching methods

In Early Years Foundation Stage we will provide:

- Opportunities to learn about the world around them by enhancing areas of provision so that pupils are able to explore scientific concepts through their play.

- Opportunities to interact with adults so that pupil's scientific thinking and vocabulary can be developed.
- Discrete lessons to explore scientific concepts.
- Cross-curricular teaching and learning to embed science learning.
- Challenge to the more able by asking open-ended questions which will extend their thinking.
- Enrichment opportunities, which will enthuse and motivate pupils, helping them to become more curious and independent learners.

In Key Stage 1 and 2 we will provide:

- Practical lessons where pupils are able to develop their science subject knowledge through working scientifically.
- Science that is taught discreetly within each year group with an engaging, practical cross curricular teaching and learning approach linked to the Cornerstones topic projects to help embed science learning and provide meaningful opportunities for all children.
- Challenge to the more able by asking open-ended questions and promoting prediction and explanation skills.
- Opportunities to develop writing by using science as a meaningful and real context for lessons.
- Links with external agencies and enrichment opportunities, which will enthuse and motivate pupils, helping them to become more curious and independent learners, preparing them for the 21st century.

Assessment and Monitoring

Children are given oral and/or written feedback in adherence to the marking and feedback policy about their science work, in order to help them develop specific aspects of it further, aiding progression.
For more information please see the Assessment and Marking and Feedback Policies.

Summative:

EYFS staff will monitor and track pupil progress of 'The World' through the use of Tapestry software.

All staff will assess children for science subject knowledge and Working Scientifically each term based on the Year Group Expectation 'I can' statements, entering data through DCPro (3 times per year).

End of Key Stage data for pupils who have 'Met' or 'Not Met' the key stage standard will reported in line with ARA statutory guidance.

Formative:

During projects teachers will regularly input formative assessment on 'I can' statement subject overviews, highlighting gaps in learning.

Marking and feedback during the lessons will provide instant feedback to pupils and interventions will be planned appropriately by the class teachers.

Feedback to Parents

General updates on a child's progress will be given to parents in a variety of forms including letters home, informal discussions with the class teacher at the end of the day and an academic overview at parent-teacher interviews during the autumn and spring terms. Parents will also be provided with a written report about their child's progress during the summer term every year. These will include information on pupils' attitudes towards Science and their progress. An opportunity will be provided for parents to discuss this report with the relevant teachers.

Identification of children who are not making progress

This identification comes from three sources: the class teacher, the Science coordinator and / or the SENCO. Early interventions will be identified through formative assessments by the class teacher and SDI's (Same Day Intervention) will be used for plugging gaps that day.

If further intervention is necessary these will be addressed during discussions with Phase Leaders during PPA sessions. Discussions will also take place in the form of Pupil Progress Meetings to determine any reason for a child/group failing to make sufficient progress following interventions already put in place by the class teacher. Any intervention will be monitored and evaluated on DC Pro and 'I can' overviews for their effectiveness.

Monitoring and review

The science subject leader will monitor the teaching and learning of science throughout the school. Learning walks will provide evidence of the progressive and challenging teaching of

science, resulting in pupil progress, through book looks, learning walks and lesson observations. Constructive feedback will then be provided to all members of staff.

This policy will be reviewed annually by the subject leader.

Any changes made to this policy will be communicated to all teaching staff.