



Faith, Family and Fascination

Science Policy

Boutcher C.E. Primary School

Reviewed by: Ashlie Dixon

Last reviewed during: Spring 2024

Next review due by: Spring 2026

**"Love one another. As I have loved you, so you must love one another."
*John 13:34***

Mission Statement

The Science Policy will support the delivery of the Mission Statement. Science takes place within the context of the Christian aims and ethos of Boutcher School as reflected by our Mission Statement.

“The aims and practice of Boutcher School seek to reflect the life and teachings of Jesus Christ as told in the Gospels. Jesus taught us, through His example of unconditional love and compassion, that we are all of equal value to God. Everyone is entitled to be regarded with dignity, fairness and respect. We strive to ensure that our school enshrines the values which Jesus taught us.”

The children at Boutcher discussed our Mission Statement and created their own interpretation of it.

“In our school everyone has the right to learn, the right to feel safe and the right to respect. They have the right to learn the good news of the Gospels and to know that God loves us all equally (whether we are rich or poor, young or old.)

We strive to live in the way that Jesus would want us to. We tell others Jesus's stories so that they can learn from them too and we try to set an example for other people in the way that we act. In all that we do we help each other and love others as Jesus would want us to.

Boutcher CE Primary School tries its best to remember that Jesus loves us, even when we make mistakes.”

SMSC Statement

Through the teaching of Science, children’s SMSC is promoted and supported. We aim to prepare our children to maximise opportunities, develop their responsibility and enhance their experiences now and in the future.

Through lessons we promote our Boutcher values of Faith, Family and Fascination. We enable every child to develop and flourish in a loving and open environment in lessons. We actively promote the fundamental British Values as stated by the Government and design opportunities in the curriculum to do this. We want Science to be an enjoyable subject where children are fascinated by the learning of themselves, others and the world around them. At the heart of our school, is the rich and diverse culture and community that we enjoy and celebrate. We seek opportunities to work with the local community, explore our local area, welcome visitors to the school, go on trips and take part in community events and projects.

For further information, see the SMSC Policy.

Equal Opportunities and Inclusion

In Science, we are committed to promoting and providing all children with high expectations and an equal entitlement and opportunities regardless of race, gender, culture, class, SEN or disability. We aim to meet the needs of all our children by personalising our Science curriculum, promoting inclusivity to fully engage and motivate all children. This involves providing opportunities for SEND children to receive support and/or scaffolding as well as challenging all children to take an active part in their learning and to achieve their potential. When working in groups and taking part in practical, hands-on tasks, we will take into account pupils’ needs so that they are able to take an active role in the task set.

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Aims and Objectives

National Curriculum Aims:

- 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

Boutcher Aims:

- to engage children so they develop a lifelong curiosity and interest in Science
- to develop an appreciation of the contribution of science with other aspects of life, recognising the famous scientists and discoveries that have impacted our lives, learning about scientists from a range of backgrounds and cultures
- to develop a knowledge of the science contained within the programmes of study of the National Curriculum, with progression across the key stages
- to build on pupils' curiosity and sense of awe of the natural world.
- to develop in pupils a general sense of enquiry which encourages them to answer scientific questions about the world around them as well as questioning and making their own suggestions
- to provide pupils with a range of hands on-experiences, practical investigations and opportunities to explore their local environment so as to develop their understanding of the world around them
- to progressively develop pupils' ability to plan, carry out and evaluate simple scientific investigations
- as children progress through the year groups, to build on the working scientifically skills as well as their scientific knowledge in each unit covered
- to reinforce key scientific vocabulary, giving children the opportunity to help consolidate and retain science knowledge

Organisation, Planning and Delivery

In the EYFS, Science content is delivered through the 'Understanding the World' strand of the EYFS curriculum. This learning will guide children to make sense of the world around them, through opportunities to explore, observe, find out about people, places, technology and their local environment.

In Key Stage One and Two, Science is taught weekly as a core subject. It is taught regularly so that pupils have frequent opportunities to revisit, make links and connections to prior learning and other areas of the curriculum whilst building their knowledge. Science topics are mapped out to specific year groups with teachers, alongside the coordinator deciding what term they wish to teach each topic (often to make links with other subjects and areas of school life or coincide with a specific time of year).

Children start each topic with a unit cover sheet. Teachers discuss the aims of the topic and share the vocabulary that will be taught in that topic. They are asked a question or given a short task to recap their prior learning in this topic. Scientific vocabulary (particularly topic specific) is modelled and encouraged to use throughout the course of the unit and children refer to it (as well as teachers with marking and feedback). Working scientifically specific vocabulary is displayed in each child's

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Science book so they can refer to it frequently and use this to develop their spoken language skills and use of scientific terms and vocabulary.

Teachers plan and deliver lessons according to the specific objectives set out on the unit cover sheet. Teachers have access to Twinkl Planit, which most teachers opt to use and substitute some lessons with the Kent Primary Scheme of work, Oak Academy or any other lessons or ideas they feel will enhance the learning of the children. Teachers should make necessary modifications to meet the needs of all children. Lessons generally have PowerPoint slides and tasks are completed in each child's Science book.

Educational Visits and Visitors

We take part in Science week each year, where whole school events and workshops take place as well as educational visits planned to museums, learning centres and exhibitions that suit the yearly theme. Teachers liaise with the Science coordinator when planning workshops and trips to support the teaching of Science topics across the year and maximise opportunities for visits that will enhance the children's learning in a particular topic.

Resources

Teachers will collate specific resources to aid practical and hands on experiences within topics as well as plan opportunities to explore the local environment and maximise opportunities for outside of the classroom learning. Most resources are kept in the Science cupboard in the main hall. The school library has a good supply of non-fiction texts to support a range of topics and for children to take out in their class library sessions. The Chromebooks and iPads can be used for Science lessons.

Marking and Feedback

Marking is key to producing independent learners in Science and helps to raise attainment by celebrating the successful aspects of a child's work and also reminding them of the next step in their learning. Feedback and marking in Science aims to challenge the children, make them question and to give them the skills needed to refine or correct their work. Vocabulary and misconceptions are addressed in both written and verbal feedback with the child or whole class. Children are encouraged to use vocabulary given to spell topic specific words correctly in their independent work. If a child needs to be questioned or supported further in order to identify if they have met the learning objective, teachers may also make additional comments or ask questions on the children's work to support them in their understanding and thinking. Children will be given support or some scaffolding where needed. For further details on marking and feedback in Science lessons, please see our Marking and Feedback Policy.

Progress and Assessment

As a school, we use the Science Southwark Star Assessment where we monitor whether children are emerging, developing or secure for their year group in relation to each topic studied. This is recorded on a central record, which all teachers have access to and update after the teaching of each topic.

Teachers use formative assessment throughout a topic and address misconceptions at the start of each lesson, normally with a slide to identify any areas of learning that need revisiting or explaining further. Children are encouraged to look at the objectives set out on the topic sheets and children are praised when scientific vocabulary is used well. Teachers may send a child for a Head Teacher's award to praise fantastic work or give a 'Proud As Punch' certificate to praise an area of work.

Summative assessment occurs through teachers using quizzes or assessments at the end of a topic to help inform their judgement of a child being emerging, developing or secure in an area of learning.

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Progress and achievement in Science is reported to parents through end of year reports.

The Science coordinator will collect in a sample of books for a 'book look', identifying areas going well and any areas that could be developed. INSET training and meetings will occur when necessary to develop CPD opportunities for the team.

Monitoring by the Governors

The governors take part in learning walks with a Science focus on a rotational basis. They visit each class and observe Science learning across the school. The coordinator will meet with the governing body to discuss these observations and go through the standard and teaching of science across the school.

Cross-curricular skills and links

Science is associated with every aspect of our lives and we will relate it to all areas of the curriculum. Cross-curricular links are encouraged and where possible, children will have the opportunity to explore their local environment and use art, DT and geography learning alongside science.

We will ensure that children realise the positive contribution of both men and women to science and the contribution from those of other cultures, through links to other subjects being taught. We will ensure children are taught and exposed to the positive effects of science on the world and how problems and challenges are faced.

In 2022, we had the school theme of 'Sustainability' where we thought consciously about the choices and decisions we make in our daily lives and their impact on the world around us. Eco-Warriors are elected from each year group and attend regular meetings with Mrs Whitton to incorporate new ideas and initiatives within the school to help make our school more sustainable.

We like to use meaningful and strong texts in reading and writing sessions to support the learning in other subject areas in a meaningful way and context.

Examples of some texts used across the school that link with Science:



Role and Responsibility of Coordinator

The Science coordinator is actively involved in planning and monitoring the subject. They run planning meetings, staff INSET (where required) and distribute new ideas and resources among the teaching staff.

The coordinator monitors the standard of Science work across the school through book looks and meetings with the governors after learning walks.

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The coordinator is responsible for ensuring there are adequate resources to support teachers in the delivery of lessons.

The coordinator will also ensure that educational visits are arranged for classes to support topics being taught and for whole school events, such as Science week.

Plan for Unforeseen School Closure

Should there be an entire school closure we will continue to teach children in accordance with the Science curriculum overview. We will continue to plan a variety of activities and provide children with opportunities to continue with their learning at home with lessons being tailored and adapted to suit home learning.

We will use online platforms to teach and deliver homework. Please see the Remote Learning Policy.

Promoting Diversity in Science

At Boutcher, we have always been committed to providing all children with an equal entitlement to activities and opportunities regardless of race, gender, culture or class.

We want all children to feel they are positively represented and have opportunities to find out and explore the lives of significant individuals that have made an impact in the world we live in. For BAME children, this may be learning about prominent figures and their influence from people from a range of countries and places. We want children to see themselves as the future and be equipped with the necessary skills and knowledge from the wider world. If children have the self-belief and determination, they will achieve greatness.

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In Science lessons, children are regularly reminded that we respect all people, beliefs and cultures and that disrespect and derogatory views are not tolerated. If children share views that cause concern, these should be written on the appropriate forms and handed to the Headteacher. If teacher's feel uncomfortable in discussions or when planning lessons, they should speak to the Science coordinator for support.

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