Science Policy

Leasingham St. Andrew's Church of England Primary School

'Everything you do, do in love'

Reviewed and updated: February 2025

Next review: February 2028

1). Rationale and Principles

The school aims to provide opportunities for the children to develop an interest and enquiring mind about the world and develop scientific skills which will allow them to investigate and further their understanding of the natural phenomena in the world around them. It also teaches essential aspects of knowledge, processes and uses of science. This policy aims to outline the purpose, nature and management of the Science taught in our school.
Through the teaching of Science, we aim to reflect and live-out the vision of Leasingham St. Anndrew's Church of England Primary School.

Everything you do, do in love'

At St Andrew's, we seek to be a safe and happy environment, inspiring our school family to be positive participants in the world community. A place where we are all encouraged, through love and service, to be the very best.

John 13:34 'Love one another, as I have loved you'

We aim to demonstrate the following 'golden threads' through the subject of Science.

- High aspirations permeate across the school.
- The school offers a host of cultural experiences and enrichment opportunities.
- Our children develop a love of life-long reading.
- British Values are an intrinsic part of the school.

2). Intent

At Leasingham St. Andrew's Church of England Primary School, science teaching aims to provide all children with a strong understanding of the world around them, whilst acquiring specific skills and knowledge to help them to think scientifically, to gain an understanding of scientific processes and an understanding of the uses and implications of this subject, today and for the future.

Our science teaching uses an enquiry process to allow pupils to learn for themselves. We encourage children to both answer subject specific questions, but also ask their own questions about the world around them. Our curriculum enables children to observe, problem-solve, investigate and question the changing world around them in their handling of scientific-based questions. Our science teaching uses an enquiry process by asking and answering questions and using key vocabulary, which shapes the learning and allows the pupils to learn for themselves. Within Science, we have identified the key knowledge to allow our pupils to become successful scientists. This is set out in more detail in or termly plans.

3). Implementation

At Leasingham St. Andrew's Church of England Primary School, our science curriculum covers the statutory requirements of the National Curriculum by teaching in blocks so that we build upon learning from prior year groups to ensure progression is achieved. The science curriculum uses a spiral approach to embed understanding of the key concepts for each Key Stage. Working like scientists, through speaking and listening and evaluating sources, the children will learn critical awareness while searching for answers and drawing conclusions.

The Daily Implementation of Science at St Andrew's:

Subject specific vocabulary: identified through knowledge organisers and working walls and highlighted to the children at the beginning of and during lessons.

• EYFS: Reception children are given a secure grounding in the prime areas of learning, ensuring they have a good foundation on which to build through the specific areas of learning. Provision are enhanced to ensure vocabulary understanding and extension and develop understanding of the world around them.

• Books: Children will have access to a growing variety of subject specific non-fiction books, available in Science lessons, other lessons and in the class book area. Wherever possible, text-based writing will link to the Science being taught.

• Use of equipment: Where possible, we use different equipment for the children to explore and investigate. We believe that handling real life science equipment enhances the children's scientific knowledge, understanding the skills and uses for different equipment.

• Consistent teaching sequence: Science lessons will include a range of learning opportunities, including putting the learning in the big picture, placing the science being studied in the context of previous learning, a brief review of previous lesson/s, specifying key vocabulary to be used and its meaning, conducting scientific enquiry using a variety of resources and or sources, pupils interpreting their findings and communicating their scientific knowledge and understanding appropriately, before evaluating their learning and comparing with other science topics studied as appropriate.

• Research: Children will be asked to research scientific aspects of their learning independently. This allows the children to have ownership over their curriculum and lead their own learning in science.

• Basic skills - English, maths and computing skills are taught during discrete lessons but are revisited in science so children can apply and embed the skills they have learnt in a purposeful context. The expectation is that standards in writing in science are comparable with standards in English lessons.

• Carrying out investigations/experiments to understand and see learning in action – learning by doing.

• Cultural Capital - We plan visits, visitors and in-school WOW days to provide first-hand experiences for the children to support and develop their learning. Enriching the curriculum with trips, and developing cultural capital, inspire discussion, questioning and contextual vocabulary through bringing science to life.

Authentic primary and secondary sources are used in lessons where possible, to allow children to explore artefacts, watch media and read high-quality texts in their journey to become scientists.

4). Impact

By weaving the key concepts through all the units in the science curriculum, the impact for children at St. Andrew's Church of England Primary School can be seen through:

- Our children being able to retain knowledge that gives them the basis for understanding the world around them.
- The children having the confidence to question ideas, reflect upon knowledge and to be resilient when the outcomes of their ideas are called into question.
- Our children being able to work collectively to investigate and experiment, initiating their own ideas for investigation where appropriate.
- St. Andrew's pupils being eloquent and confident when sharing their knowledge and proficient at suggesting improvements to their own work.

Practising these transferable skills and discipline-specific skills will enable children to confidently take their place in the wider world – a hope drawn from our school vision: '…being positive participants in the world community.' Additionally, the children will know more and remember more, with the majority of children achieving age-related expectations in Science.

5). Role of the Subject Leader

At Leasingham St Andrew's Church of England Primary School, the role of the Science subject leader is to ensure that children make sufficient progress through each year group, acquiring and applying key knowledge. This will be achieved by:

- Securing high quality teaching.
- Ensuring that planning meets the requirements of the school's agreed curriculum.
- Monitoring the effective use of resources.
- Having oversight of curriculum coverage and ensuring that the curriculum meets national requirements.
- Developing assessment and record keeping, ensuring progression and continuity.

- Ensuring that colleagues are aware of expectations and supporting them in teaching the subject through the progressive and sequenced curriculum map.

- Action planning for future development.

- Ensuring that appropriate resources are in place to deliver a rich and challenging curriculum.

- Monitoring the effectiveness of teaching and the impact on learning and standards.

- Evaluating and summarising all aspects of the subject to define next steps for improvement.

- Keeping abreast of development in subject education and media usage.

6). Assessment

At Leasingham St. Andrew's Church of England Primary School, we assess the children's work in Science by making informal judgements as we observe the children during lessons. At the end of each long term (Autumn, Spring and Summer), teachers will make a judgment as to whether each child is on track for end of year expectations, as outlined in the Science curriculum map. This is recorded on the school's online assessment system, Insight. Judgements are as follows:

- Below
- Just Below
- On Track
- Greater Depth

Class teachers keep the children's Science work in topic books.

7). Science and ICT

At Leasingham St. Andrew's Church of England Primary School, ICT plays a part in the teaching and learning of Science. Links to ICT are made in planning and every opportunity to explore links with ICT are used. Specialist ICT equipment is available for recording data.

8). Early Years Foundation Stage (EYFS)

In Reception, Science is taught as an integral part of topic work covered in the EYFS setting. In EYFS, science is about the children having the opportunities to find out and learn about the world in which they live. They will begin to gain the scientific knowledge that they will build on throughout their time at primary school, such as developing their skills of observation, prediction, critical thinking and discussion. The science side of the children's work is related to the 'Understanding the World' objectives set out in the EYFS curriculum.

9). Differentiation including catering for children with Special Educational Needs

At Leasingham St. Andrew's Church of England Primary School, we aim to encourage all children to reach their full potential in Science through the provision of varied opportunities and responding and adapting our teaching to the children's individual needs. We recognise that our curriculum planning must allow children to gain a progressively deeper understanding and competency as they move through our school. Children with specific needs, such as those in receipt of an Educational Health Care Plan (EHCP) will work on outcomes suited to their own abilities.

10). Equal Opportunities

At Leasingham St. Andrew's Church of England Primary School, all children will be given equal access to Science irrespective of race, gender and creed, level of ability or nationality. Mutual respect and tolerance for all cultures will be promoted through the study of Science.

11). Resources

At Leasingham St. Andrew's Church of England Primary School, Science topics have resource boxes containing a range of resources and equipment to aid the teaching of that subject. Resources are audited regularly and reviewed through discussion with teachers.

12). Monitoring and Evaluation

To monitor and evaluate Science, the subject leader:

- *Supports teachers via explaining the progressive curriculum map, discussing the key concepts in Science, co-planning, team teaching, observing and giving feedback.*
- *Monitors teachers' medium-term planning against the progression contained in the curriculum map.*
- *Reviews resource provision.*
- *Works co-operatively with the SENDCo*
- *Reviews the progress with implementing this policy in the school with the Headteacher and/or subject governor.*

13). Disability and Equality Statement

This policy has been written with reference to and in consideration of the school's Disability Equality Scheme. Assessment will include consideration of issues identified by the involvement of disabled children, staff and parents and any information the school holds on disabled children, staff and parents.

Any questions or concerns regarding this policy should be made to the Headteacher.