St Laurence Church Infant School

Science Policy

Approved by:	Curriculum, Safeguarding and Pupil Welfare Committee
Last revised on:	May 2023
Next review due by:	May 2026

St Laurence Church Infant School

Love for learning, life and one another.

Science Policy

At St Laurence Church Infant School we value Science because it makes an increasing contribution to all aspects of life. Children are naturally fascinated by everything in the world around them and Science makes a valuable contribution to their understanding.

As a Rights Respecting School, our Science curriculum enables our children as rights holders to learn how the world around them works.

Our children told us:

We love Science because we like to do experiments and make things explode. In Science week we learned all about famous scientists who did cool things. I want to be a scientist when I grow up because I want to (know and understand how to) help people.

Intent

Why we teach Science

Our curriculum aims outlined below enable all children to appreciate their own and others' achievements but most importantly enjoy their own experiences.

Our Science Curriculum is designed to develop five core characteristics in our pupils, which we believe will lay the foundations for them to be lifelong learners and good global citizens. These drivers are:

Our aims in teaching Science at St Laurence Church Infant School help all children to..

- **Feel part of a Community** by:
  - Understanding different roles/jobs that involve science
  - Learn how to look after our environment
- **Be Creative** by:
  - Using different materials in collages
- **Develop Curiosity** by:
  - Asking questions to find out why
- **Communicate confidently** by:
  - Use scientific enquiry skills to discuss and explore
  - Solving problems and learning why experiments were/weren't successful

- **Care for ourselves, others and our world**
    - Respecting all living creatures and their habitats

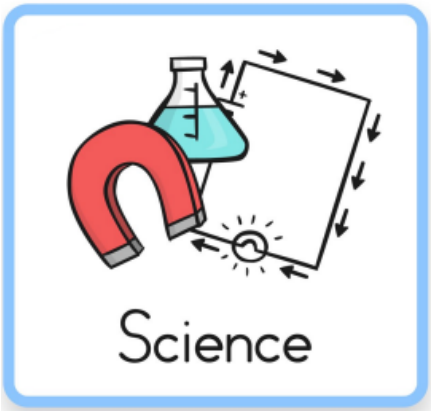
Through the framework of the National Curriculum 2014 and the Early Learning Goals for Knowledge and Understanding of the World, our intent is to distil a lifelong passion of science within our pupils.

In line with our Curriculum Drivers, we want our pupils to develop a **curiosity** and interest in the world around them, that as a faith school we believe is a gift from God. Science has changed our lives and is vital to the world's future prosperity. Because of this we aim to provide opportunities for children to acquire the specific skills and knowledge to help them think and **communicate** scientifically. Scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at school. When learning about the world around them, we teach them to be respectful and show **care** for all living things and our environment. We want to increase their enthusiasm and allow them to create links between science and other school subjects, as well as their lives more generally.

Implementation

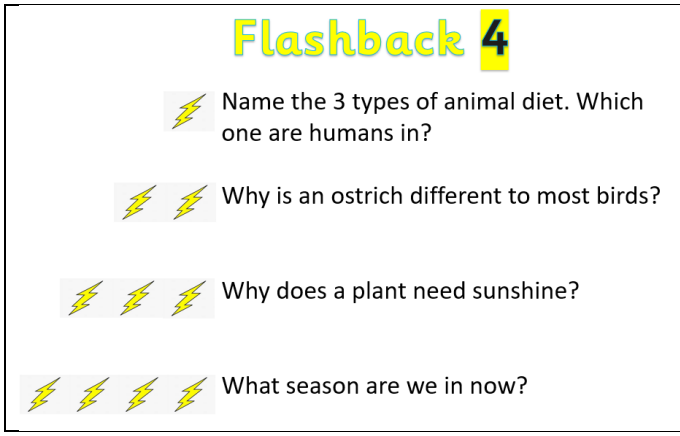
How we teach Science

Staff use the Science Subject Jingle at the beginning of each session along with the visual timetable icon to ensure children articulate what Science is like at St Laurence Church Infant School. In KS1, Science is taught weekly for at least 45mins.



Science Jingle: *(To the tune of 'Baa baa black sheep')*

S cience, science
C uriosity
I nventions
E ngineers
N ewton, who was he?
C ollect some data
E xperiment
F ind out
U nderstand
N ow take a measurement!



At the start of every Science lesson, the children recap prior learning through the Flashback 4 process (a question about their last lesson, something from earlier in that topic, something from a previous topic and something from the previous year of Science).

We teach Science through half termly or termly learning units, through a practical 'hands on' learning approach. We provide environments in which children can explore, enjoy and develop their natural curiosity. Children are encouraged to devise and carry out investigations and are given the opportunity to explore the natural and physical environment, in order to develop their sense of wonder at God's beautiful world. They may work individually, in mixed ability groups, whole class groups or with ability partners to complete scientific tasks and activities. This allows for flexibility, exploration and discussion. Children are taught to understand and use scientific vocabulary for each unit being taught, and their skills of questioning, observing, predicting, gathering and recording data, and interpreting findings to draw conclusions, are developed. A Science and Technology week is held every year in March.

How we plan Science

Planning for Science is a process driven by the Science Lead. In Years 1 and 2, long term and medium term plans have been produced by the subject co-ordinator, in line with the year group topics. This ensures a full and sequential progression through the KS1 curriculum. In Foundation Stage, the Year group lead and other colleagues are all involved in the planning. Towards the Knowledge and Understanding of the World strands. Long term planning identifies the units being taught each term, and medium term planning highlights the specific knowledge and concepts to be taught for those units. Weekly planning outlines the delivery of individual lessons, which are planned to meet the needs of the children within the classroom.

In Reception, Science is planned and taught as an integral part of the topic work covered during the year. As part of the Foundation Stage, we relate the scientific aspects of the children's work to the objectives set out in the Early Learning Goals. Developing a greater knowledge and understanding of the world around them feeds into the science curriculum at this early age.

In KS1, Science is planned and taught as a discrete lesson every week and as part of cross-curricular themes where appropriate. This provides opportunities for children to deepen their learning and transfer skills within a range of contexts. Fundamental links are made throughout the curriculum, the most obvious points being identified as:

English/Literacy: Reading and writing skills as well as exploration of new vocabulary.
Mathematics: Data collection or timings during an investigation.
Computing: ICT as a valuable resource to support the teaching and reinforcing of scientific skills. The appropriate and supervised use of the internet will provide a vast support system for learning more about the world and supporting children's questions and ideas. Websites or video links are checked to ensure that they are appropriate to share with children.

How we ensure all children access the Science Curriculum

At St Laurence we will ensure that all our children have the opportunity to gain science knowledge and understanding and achieve their full potential, regardless of gender, race, cultural background, class or physical and intellectual ability. During both the planning and teaching stages, differentiation through a variety of methods will be considered to ensure that there is no underachievement present by any group. Science work will reflect our multicultural society wherever possible.

How we assess Science

Assessment is ongoing to inform teachers with their planning, lesson activities and differentiation. Each scientific unit is assessed as it is taught, and judgments are based upon our observations, questioning, discussion and reviewing of written work. Children are given immediate feedback during lessons, including steps to move their learning forward. Evidence for the assessment of Science (KUW ELG in Foundation Stage) can be in the form of written work, post-it notes, drawings, photographic evidence and observations. In KS1 success criteria are shared with the children and how they can improve and develop their knowledge and skills in line with the Science knowledge and skills progression map. Photographs and observations are used to evidence children's progress and these can be evidenced in their Red books, floor books and gallery boards in the classrooms. At the end of each year teachers make a formal comment on a child's progress in Science on their end of year report.

How is the teaching and learning of Science monitored

The Science Lead, together with the Headteacher, will have an overview of the teaching of Science so that effective implementation of the curriculum is ensured. Regular discussions are held with staff to provide advice and support with subject knowledge, lesson planning and on the effective use of resources. Learning walks, discussions with children and monitoring of books will enable the Science Lead to monitor the standards of teaching and learning. The Science Lead will endeavour to stay abreast of any new developments in the delivery of the Science curriculum, so that staff, senior leaders and governors are kept up to date.

Impact

Children at St Laurence Church Infant School will make expected or better progress in their Science Programmes of Study, and overall standards at the end of the key stage will be in line or better than national averages. More importantly, children will have developed the skills, knowledge and vocabulary gained throughout the Science Curriculum at St Laurence Church Infant school, ensuring that all children are able to: Feel part of a **Community;** Be **Creative**; Develop **Curiosity**: **Communicate** confidently and **Care** for ourselves, others and our world.

Review

This Science policy will be reviewed by the Science curriculum lead within the next three years, or before if there are changes to the Science curriculum.

Date of policy ….. June 2023

Date for next review of this document ….. June 2026

Science Co Ordinator…. Frances Goodwin