ST. TERESA'S CATHOLIC PRIMARY SCHOOL, LEXDEN, COLCHESTER

SCIENCE POLICY

We love God and each other and follow the example of St Teresa.
We enjoy learning together and doing our best in a happy, healthy and welcoming community.
We learn to be responsible and caring citizens.
"Let us do little things well today".
St Teresa

Approved by:	Governing Body	**Date:** *January 2025*
Last reviewed on:	January 2025	
Next review due by:	January 2027	

Our Vision for Science at St. Teresa's

At St Teresa's, we strive to deliver a high-quality, engaging science curriculum which encourages our children to be curious and inquisitive about the world around them. Through practical exploration, questioning and discovery our children's natural curiosity is sparked and a deeper understanding of the world evolves.

Our Science curriculum aims to:

- Ensure that the curriculum evolves as the science world moves forward and engages the children's curiosity and sense of awe of the natural world, to develop their enjoyment and interest in science, appreciating its contribution to all aspects of everyday life
- Use a range of investigations and practical activities to give children a greater understanding of the concepts and knowledge of science while introducing them to the language and vocabulary of science
- To embed questioning skills that develop problem-finding and problem-solving processes in the science world.
- Develop the connection between science, as separate strands (Biology, Chemistry and Physics stars),
- Make links to the STEAM and how science is complimented by other subject strands.
- Develop children's practical skills and their ability to make accurate and appropriate measurements, to include developing the use of computing in their science studies
- Extend the learning environment for our children through trips to environmental and learning areas, museums and welcoming science visitors to the school
- Promote a healthy lifestyle for our children

Planning

The national curriculum provides the framework for science we teach at St. Teresa's. Science forms part of our creative, cross curricular approach to the termly topic planning. Cross curricular links are identified in planning as are the needs of children with special educational needs (including gifted, able and talented). Medium term plans are used to inform on the coverage taking part in each year group and evidence of learning is submitted to the science lead at the end of each topic covered.

At St. Teresa's we ensure that:

- ❖ lessons incorporate our PICQ golden thread for Practical, Inquisitive, Curiosity and Questioning.
- ❖ all children are involved in oral work where they are supported in developing oracy responses using scientific vocabulary
- ❖ planning is sympathetic and stimulating so that all children can thrive.
- ❖ hey have access to stimulating materials and equipment that support each lesson.
- ❖ teachers have high expectations of every child and support them to thrive.

Approaches

Children start science in school by Understanding the World. This develops as children take notice of everything around them including trees and animals in the natural environment and roads/buildings in the man-made environment. The children's awareness of what is going on around them is extended by visiting places and finding out about different elements using a

variety of resources. This aspect of learning includes investigating cause and effect, which is developed through conversations with each other and with adults about the things they observe.

A variety of teaching and learning styles are used in science throughout the school. One of our aims is to develop children's knowledge, skills and understanding along with a sense of wonder in the world. Sometimes this will be achieved through whole class teaching, and at other times it is achieved through an enquiry based research activity.

The children start their new topic with a 'Deep Dive Question' that promotes scientific enquiry. The children are encouraged to ask, as well as answer, scientific questions. They have many opportunities to use a variety of data including statistics, graphs, diagrams, websites and photographs. The children use computing in science lessons where it enhances their learning and they take part in discussion, presenting to the rest of the class as appropriate.

The children engage in a wide range of problem solving activities and wherever possible, they are involved in 'real' scientific activities.

Cross Curricular Links

At St. Teresa's we are committed to link our learning in science to other curriculum areas. Science is taught through English by the skills of reading, writing, speaking and listening. Children read fiction where science ideas may be introduced and non- fiction books of a specific scientific nature (eg, light, rocks, etc.). Children learn to recount events, follow instructions and interpret data. Writing skills are developed through writing reports.

Science contributes to the teaching of mathematics in a number of ways including the use of weights, measures, timers, learning to use and apply number. Through experiments children learn to estimate, predict and compare. Tables and graphs are produced, manually and using computing programs, and are analysed.

Staff embrace the use of computing in science at St. Teresa's. Children use technology to record, present and interpret data. They review, modify and evaluate their work. The use of visualisers and digital microscopes help stimulate children's natural curiosity. The children have access to the internet to research information about their science and STEM topics. The use of iPad apps, microscopes, data loggers and computer based programs are a regular part of our teaching and learning.

Monitoring and Assessment

We assess children's work in science by making informal judgements as we observe them during lessons. Science books are used and scrutinised throughout the year by the science leader. Feedback is reflective and its purpose is to move children on in their learning and skills.

Science is assessed using target tracker statements and is completed on a termly basis. In addition, the teacher will provide the science lead with examples of assessed work for each topic covered. Working scientifically is also recorded using target tracker, bearing in mind that the objectives cover the whole of KS1 and the whole of KS2.

The subject lead is able to download data based on each class, key stage or other group. This is monitored on a termly basis.

Equal Opportunities

In line with our Equal Opportunities Policy we are committed to providing a teaching environment conducive to learning. Each child is valued, respected and challenged regardless of race, gender, religion, social background, culture or disability.

Inclusion

All children receive quality first teaching and activities are differentiated according to children's needs. Appropriate support is put in place where identified pupils are considered to require targeted support to enable them to work towards age appropriate objectives.

Resources

A variety of resources are available in school and are organised into topic boxes. Resources are stored in the resources room, and each box is clearly labelled. Staff are responsible for returning all science equipment when they have finished using it. Any damaged equipment should be reported to the science lead as soon as possible. Any resources that need replenishing should be informed to the science lead who will replenish these. The science lead will also monitor the science equipment and add replenishments when necessary.

I have taken out the garden paragraph 'farm to fork' as this no longer exists.

The quality and availability of resources will be maintained and children should be encouraged to value these resources also. As funding allows, the range of resources will be updated and extended as necessary.

Staff should wear their lab coat for every science lesson offering the 'mantle of the expert' model to children. Children have lab coats to wear too for both practical and non practical work.

Health and Safety

It is important that all staff are aware of the responsibility they have regarding health and safety both inside and outside the classroom. Both staff and children's safety must be taken into account when undertaking scientific activities.

All staff take the responsibility for the safe use of scientific equipment, making sure risk assessments where necessary have been made. Where necessary, adult supervision with equipment will take precedent for the health and safety of all children and staff.

Role of the Subject Leader

The role of the subject leader is to:

- ✓ Encourage, enthuse and support teaching of science (and latterly STEM) within the school.
- ✓ Monitor the use of policy, planning and assessment.
- ✓ Order and maintain resources.
- ✓ Ensure continuity and progression through the teaching and learning of science across the school.
- ✓ Ensure that staff are aware of changes to the curriculum or within science.
- ✓ Investigate staff training and development.
- ✓ Develop the Action Plan to continue to drive improvement in science across the school.

Approved by Governors: 15th January 2025
Reviewed: Spring term 2025
To be reviewed: Spring term 2027