SCIENCE POLICY

St John Church of England Infant School

Approved:	**Date: September 2025**
Review:	**Date: September 2026**

From the smallest of seeds fed with faith and love our
Saint John's family will flourish and grow.
Dicocese of Rochester

All of our polices are written with the aim of improving our school and of realising our Christian vision:

From the smallest of seeds fed with faith and  love our St John's family will flourish and grow.

Our vision underpins every document, procedure and decision made within our setting. We are committed to enabling all members of our small community to **flourish and grow** through the values of faith and love and to ensuring that they go on equipped for 21st century living and to have a positive impact on the world.

Based on the teachings of Matthew 13:31

Introduction

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all children should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, children should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

We are committed to providing a safe environment for children and are adhering to Government guidelines for the safe practice of Science during the current Covid-19 pandemic.

Aims

Science is a core subject within the National Curriculum. The aims of teaching Science at St John CE Infants take account of the National Curriculum Non-Statutory Guidance for Science and are consistent with our school philosophy. Therefore, our aim in science is to ensure that all children:

- 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.
- develop a genuine love for science and a curious and investigative nature to engage with and ask questions about the world around them.

Objectives

In the teaching and learning of Science, we can identify a number of key objectives:

- to put scientific enquiry at the heart of science teaching to help develop children's natural curiosity
- the incorporation of opportunities to acquire, practise and develop scientific skills and attitudes
- a secure understanding of each of the key concepts to enable progress to the next stage.
- to provide flexible ways of working including class, group and individual work whilst supporting children in taking on differing roles in these groups.
- to provide opportunities for children and staff to share and develop ideas and respect each other's views.
- to build upon the experiences children bring to Science and develop these in a wide range of contexts.
- to build up children's confidence, enjoyment and competence when working in Science.
- to encourage children to work in an increasingly independent way and develop their own research skills.
- to make closer links between literacy and science, ensuring each term has a piece of written science work through a specific genre.

Science Curriculum

We aim to provide a well-balanced curriculum which covers the statutory requirements for the Early Years Foundation Stage (EYFS) and the Science National Curriculum.

In the Early Years Foundation Stage curriculum Science is covered with in the Prime Area of Personal, Social and Emotional Development and the Specific Area of Knowledge and Understanding of the World.

Children will look at the importance for good health through physical exercise and healthy eating. They will observe changes to their bodies when carrying out physical activities.

Children will look at similarities and differences between materials and living things. They will make observations of animals and plants and talk about why some things occur and changes. Children will develop an understanding of growth, decay and changes over time.

Children in Key Stage 1 are required to carry out a variety of investigations that will incorporate the following enquiry skills:

· Observation over time
· Identifying and classifying
· Pattern seeking
· Research
· Comparative fair testing

Children will be beginning to develop seven different scientific skills whilst throughout Key Stage 1. The seven skills are as follows:

· Asking questions
· Making predictions
· Setting up tests
· Observing and measuring
· Recording data
· Interpreting and communicating results
· Evaluating

Science is taught through Cornerstones Curriculum Maestro. This curriculum offers exciting projects that are intended to engage all children. The topics are taught on a 2-year cycle to incorporate the mixed age classes, so as they are covering different projects each year.

Science is covered through a variety of projects throughout the cycles, some of the projects driver subject is science.

Health and safety

When working with tools, equipment and materials, in practical activities and in different environments, including those that are unfamiliar, children should be taught:

- about hazards, risks and risk control,
- to recognise hazards, assess consequent risks, take steps to control the risks to themselves and others, and to explain the steps they take to control risks,
- to use information to assess the immediate and cumulative risks,
- to manage their environment to ensure the health and safety of themselves and others.

When teaching Science, Health and Safety issues should be taken into consideration:

- children should be supervised fully, especially when using tools and apparatus.
- all equipment should be stored safely and returned to the correct place at the end of each lesson.
- children and staff should wear protective clothing; for example, safety goggles should be used when working with potentially dangerous substances.
- when using newspapers or magazines to protect tables, care must be taken that inappropriate articles or photographs are concealed from the children.

- materials for Science should be bought from an educational supplier.
- the correct procedures and techniques should be shown to children before they use any tools, e.g. scissors, knives, chisels.
- all liquids or objects spilt or dropped on the floor should be cleared away immediately to avoid accidents.
- glass should always be handled carefully and, whenever possible, plastic should be used instead.
- thermometers should always be used carefully. Only alcohol-filled thermometers should be used.
- with naked flames, e.g. lighted candles, children should be warned to keep long hair, ties and other bits of clothing away from the flame. Candles should be fixed firmly in a suitable holder and lit by an adult.
- hot water should be used with care and should not be put in glass containers, which could crack.

- lenses, e.g. magnifying glasses, can focus light and heat; therefore, special care should be taken that children do not look at a source of light through these lenses.
- care should be taken when holding any object close to the eye.
- tasting should only be allowed under close supervision.
- extreme care should be taken when carrying out electrical work. Mains electricity should not be used, only low-voltage batteries.

Special Educational Needs

At our school we teach Science to all children, whatever their ability. Science forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Science teaching, we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels. We enable children to have access to the full range of activities involved in learning Science. Where children are to participate in activities outside the classroom, for example, a trip to a Science

museum, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all children.

Equal Opportunities

All teaching and non-teaching staff at St Johns are responsible for ensuring that all children, irrespective of gender, ability, ethnic origin and social circumstances, have access to the whole curriculum and opportunities to make the greatest progress possible in all areas of the curriculum while at our school. Children in all year groups and in both Key Stages have an equal opportunity to undertake all aspects of work in Science and have equal access to Science teaching and learning throughout any one school year.

Assessment and Recording

Teachers assess children's learning in science by making informal judgements through observations, AFL opportunities and assessing against the objectives for the lesson.

Teachers assess the children formally against the objectives on the Cornerstone Curriculum Maestro. These are completed as soon after the lesson has been taught as possible, so as to ensure that they are accurate.

Monitoring and Review

The monitoring of the standards of children's work and of the quality of teaching in science is the responsibility of the science subject leader. It is the responsibility of the Science subject leader to monitor the standards of children's work and the quality of teaching in Science. The Science subject leader is also responsible for supporting colleagues in the teaching of Science, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The Science subject leader gives the head teacher an annual summary report in which s/he evaluates strengths and weaknesses in the subject and indicates areas for further improvement. The Science subject leader has specially-allocated time for fulfilling the vital task of reviewing samples of children's work and visiting classes to observe teaching in the subject.

Policy review

In accordance with school procedures, this policy will be reviewed annually by the governing body and updated as and when appropriate by the subject manager.