



Science Policy

2025 - 2026

Date written:	September 2025
Date to review:	Annually

'The Love of Christ Shines Here'

Our School is Christ-centred where Gospel values permeate our daily lives.

We extend our hand of friendship to the wider community in the spirit of love, peace and justice.

We create opportunities to celebrate the uniqueness of every child and nurture them through a stimulating and enriching curriculum.



Science Policy

Rationale

The Science curriculum that we deliver allows our pupils to know that science is the way in which we gather information about and develop our understanding of our universe and everything that's in it. We encourage pupils to realise that scientific knowledge is constantly changing and that they can contribute to scientific discoveries

Curriculum Intent

Through science we encourage our pupils to work collaboratively and as individuals; to think analytically, creatively and methodically; to communicate and present their ideas in various forms; to understand the three specific disciplines of chemistry, biology and physics; to understand the uses and implications of scientific knowledge. We use science to promote the pupils' vocabulary and develop their spoken language.

Curriculum Implementation

The science curriculum is reviewed in September of each academic year in readiness for the following year. Learning opportunities are fine-tuned and the Subject Lead works with the Senior Leadership Team of school to identify progress milestones across the various strands of the subject. Teachers ensure progression by repetition of key skills to embed key learning and subject knowledge. During the teaching of topics and interwoven throughout the science curriculum, we embed the necessary skills for our pupils to work scientifically. We introduce our pupils to scientific concepts in EYFS, most noticeably through the following areas of learning: Communication and Language; Personal, Social and Emotional Development; and Understanding of the World. In Year 1 we teach pupils to: observe closely using simple equipment; identify and classify groups; and ask simple questions. Building up to Year 6 by which stage pupils have been taught to: plan scientific enquiries to answer questions, including control of variables; take measurements using a range of equipment with increasing accuracy and precision; record data and results using diagrams labels, keys graphs and bar charts; use results to make predictions; report and present findings; and identify evidence that supports or refutes ideas/arguments.

Further proficiencies that we want to embed are:

- An enquiring attitude.
- Good problem-solving skills.
- Ability to think logically and methodically.
- Strong communication skills.
- A methodical approach to work.
- Research and analytical skills.
- Attention to detail.
- Determination and adaptability.
- Able to work independently.
- People skills, such as team-working ability and having an open mind.
- Creativity.

Curriculum Impact

Formative Assessment is carried out by a combination of "walking the class" during lessons to address misconceptions early, end of topic quizzes, (age appropriate) extended writing or any other way of capturing what a child has learnt and can remember from their curriculum. Assessment is undertaken to ascertain subject knowledge, skills, understanding of scientific concepts and recall of information to measure whether a pupil is ready to progress, needs support to progress or to identify barriers that are preventing students from making progress. Assessment doesn't just test a pupil's substantive knowledge, but gauges their disciplinary knowledge. Children are also given "flashbacks" as an entry point for each lesson to provide them with opportunity to recall information from previous topics.



Our science curriculum aims to inspire our pupils to become scientists and develop their understanding that the field of science is huge with many different roles in the job market. We want to encourage aspirations so that pupils can identify the skills and characteristics that they need, whether it be working with animals, rocks or exploring the universe.

Many science graduates go in to the following jobs:

- **Biologists** study living things like plants and animals.
- **Chemists** study chemicals.
- **Research scientists** do experiments and investigations into different things.
- **Physicists** [explore why matter and energy behave the way they do.](#)
- **Forensic scientists** help to investigate crimes by gathering and analysing evidence.
- **Food scientists** study elements of food and help make food products.
- **Astronomers** explore the origin and structure of the universe – that includes stars, planets and dark matter.
- **Nuclear engineers** research nuclear energy and radiation.
- **Meteorologists** observe and analyse weather conditions. [Read this to find out how to become one.](#)
- **Agriculture & Environment:** agricultural engineer, geologist, ecologist, archaeologist, seismologist, botanist.
- **Animal Welfare:** veterinary surgeon, zoologist, pet behaviour counsellor.
- **Engineering:** chemical engineer, aerospace engineer.
- **Police, Security & Emergencies:** scene of crime investigator, fingerprint officer.
- **Sport & Fitness:** sports scientist.
- **Doctor or Dentist:** looking after people and keeping them healthy

Assessment/Monitoring

Formative assessment is used during every lesson to spot knowledge gaps and support future learning. Half termly children will be assessed through low stakes quizzing and the results recorded.

Inclusion

We respect pupils' unique starting points and we teach Science to all children, whatever their ability and individual needs. Class teachers work to ensure that they are aware of the individual needs of pupils to ensure they can provide learning opportunities that are matched to these needs.

We strive to meet the needs of all pupils with special educational needs, disabilities, special gifts and talents, and of those learning English as an additional language with high expectations for all. The class teacher makes appropriate differentiations and aims to be effective through the use of questioning.

Pupil Voice

At Our Lady and St Philomena's we think it is important to listen to the children to help to develop our school. We carried out some interviews with pupils from Year 1 to Year 6 about Science in our school and they had some fantastic feedback for us.

The strongest message throughout the school was that children are really enjoying their Science lessons. They describe their Science lessons as interesting and thought provoking and particularly enjoy getting hands on and carrying out experiments and investigations!



Here is some of their feedback:

"Science explains everything around us and helps us to understand things more - it is the best subject because it involves mystery and discovery, we are the ones who are finding things out." Year 6

"I loved the experiments on Science Day like elephant toothpaste and the disappearing candyfloss. We are always discovering new things we didn't know before and having fun doing experiments" Year 2

"Experiments are fun and help me to learn new things, when you do experiments it's exciting but it teaches you lots of new things." Year 4

"I love to discover new things rather than look at pictures when we go to a place or have a close look at the real thing then it is easier to describe." Year 3

Cross-curricular links:

Subject

Examples / Ideas

Maths

- Plotting results from experiments (e.g. temperature over time)
- Calculating averages, ranges, percentages

English

- Writing up investigations (hypothesis, methods, conclusions)
- Using appropriate scientific vocabulary in explanations
- Reading non-fiction texts on science topics
- Debates or persuasive writing

Design & Technology

- Using knowledge of forces / structures to design bridges or towers
- Testing material properties

Geography and History

- Studying how climate, weather, erosion, rock cycle relates to geography
- Linking ecosystems to place and habitat
- Mapping and graphing environmental data