

ST FRANCIS OF ASSISI CATHOLIC PRIMARY SCHOOL



SCIENCE POLICY

Mission Statement

*At St Francis of Assisi Catholic Primary, God is at the heart of our school
We try, everyday, to follow Jesus' commandment 'Love one another as I
have loved you'*

We do this through love for our families, our friends, and our school

We respect our environment and recognise our responsibility for it

We encourage in each other a love of learning

We rejoice in each others' uniqueness

We place prayer and worship at the centre of everything we do

We are a community of love dedicated to God

Our school is somewhere We can grow together

School Intent Statement

At St Francis of Assisi Catholic Primary School, we are deeply committed to developing the gifts and talents each pupil has been given by God. The school's direction stems from its Mission Statement, 'Our School Is Somewhere We Can Grow Together'.

We deliver an engaging and challenging curriculum for every child that attends our school. The National Curriculum forms the foundation for all learning, which has been carefully sequenced to ensure that all children, in particular the disadvantaged and those with Special Educational Needs, are exposed to the richest and most varied opportunities that we can provide.

We have ambitious expectations and will support the spiritual wellbeing of each child by instilling the knowledge, skills and understanding that they need to be aspirational, successful young people, who are confident and well-rounded in an ever-changing world.

Science Intent Statement

The 2014 National Curriculum for Science aims 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.

At St Francis of Assisi, we are committed to building on children's natural sense of wonder and stimulating their curiosity through an engaging and challenging curriculum built on the acquisition of knowledge, skills and understanding of scientific enquiry. A carefully sequenced programme of learning, through both rich and varied opportunities in the classroom and in the wider world, Children, particularly disadvantaged and those with special educational needs are given opportunities to develop and refine the skills of observation, prediction, investigation, interpretation, questioning and evaluating. As our world develops rapidly both technologically and scientifically, it is vital that children leave St Francis having been given the confidence and knowledge to be aspirational, successful young people.

Subject Curriculum Design – Implementation

At St Francis we follow the 2014 National Curriculum Science which details the topics to be taught in each year group. This is with the exception of Light which is taught in year 5 rather than 6 due to other cross curricular links. Please see the Science curriculum maps for more detail on the organisation of topics by year group.

Science lessons at St Francis vary in many different ways and do not always follow one proforma. Some lessons are focused on the acquisition of knowledge whilst others are based around developing children's practical skills.

- All lessons have a clear learning objective taken from the national curriculum and this is always shared with pupils. It should be written as a 'Can I...?' and on all pieces of work.
- Lessons may be made up of both knowledge learning and practical hands on activities.
- Precise questioning during lessons ensures that pupils think deeply about the underpinning scientific concepts.
- Additional support may be given in the following ways: further use of representations; careful directed questioning; additional time or activities to consolidate understanding and use of flexible grouping.
- Every lesson should show progress and/or help children to deepen their understanding and should build on prior knowledge, therefore all children should be challenged.
- Scientific vocabulary should form part of every lesson and it should be used in the correct way in order to develop children's knowledge. Stem sentences should be used where appropriate.
- Every classroom should have helpful, appropriate, display materials, including vocabulary.
- Opportunities for self and peer assessment should be incorporated into every lesson. Children should consider what they did well and how to improve. Children are expected to perform to the best of their ability. All work should be self-assessed using traffic light colours and there should be indication of support from an adult (see marking code).
- All children should be given a Next Step per topic in their book (see Marking Key) and given time to go back and work on this or show their reflections using pink pen.

Sequencing the Curriculum

The science curriculum has been carefully sequenced through consultation with staff and the Science subject leader in order to create the Science curriculum maps. These are organised by science topic. These outline the national curriculum for each year group, the outcomes planned for, the working scientifically objectives for that topic, and vocabulary. These documents are used by teachers to support with planning to ensure there is a clear progression of skills across all sciences topics.

Foundation Stage:

We teach Science in Early Years as an integral part of the topic work and child led learning throughout the year. As Reception is part of the Early Years Foundation Stage, we relate the scientific aspects of the children's work to the objectives set out in the Early Learning Goal (ELG) for Understanding The World, part of the framework which underpins the curriculum planning for children aged three to five. Science makes a significant contribution to the objectives in this ELG of developing a child's knowledge and understanding of the world, e.g. through investigating what floats and what sinks when placed in water.

Assessment and Record Keeping

- Assessment is continuous and ongoing. There should be assessment opportunities in every lesson.

- Assessment values knowing 'why' and 'how', as well correct answers.
- Assessment does not solely focus on the need to memorise key facts and procedures and answer questions accurately and quickly.
- Assessment values applying science to new and unfamiliar situations.
- Data is recorded on Target Tracker

Inclusion and Special Needs

We aim to meet the needs of all children by an effectively differentiated curriculum through quality first teaching. Where we identify that, due to one or more factors a child is finding an area of learning challenging, measures are put in place to support the child in catching up. These measures are individual and personal to the needs of that child at that time and may be as small as altering an element of our classroom practice. On occasion a child may have a significant difficulty which requires support from specialist strategies or external agencies. Ultimately, we aim to ensure that every single child is fully catered for regardless of their age, gender, race, culture or ability. Where children do find difficulties we are pro-active in our actions

Monitoring and Evaluation

In Science, subject leaders and SLT know that children achieve their very best through regular monitoring which includes lesson visits, book and planning reviews, staff meetings and pupil voice.. Subject Leaders regularly meet and report to link governors.

Role of subject leader

The subject leader will be responsible for improving standards of teaching and learning in Science through:-

- Pupil progress,
- The quality of the learning environment,
- Taking the lead in policy development,
- Auditing and supporting colleagues in their CPD,
- Purchasing and organising resources,
- Keeping up to date with subject developments.

Reviewed June 2022 TJ