



Science Policy

Mission Statement:

With Christ, we live, love, learn and grow.

Intent

From their first day to their last at St Mary's, we support our children on a journey of learning and faith.

In learning, we want our children, by the time they leave our school: to be numerate and literate, to have received their full entitlement in all areas of the curriculum, and to have the opportunities to succeed in areas of particular interest to them.

At St Mary's, we understand that children are naturally curious and we encourage this inquisitive nature throughout their time with us and beyond. Science fosters a healthy curiosity in children about our universe and promotes respect for the living and non-living. We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Through the programmes of study in the National Curriculum science document children will acquire and develop these skills throughout their Primary years. We ensure that both the substantive and disciplinary key knowledge is built-on and developed throughout their school career so that they can:

- Make observations over time
- Research
- Pattern seek
- Identify, group and classify
- Conduct comparative and fair tests

**Overview of Scientific Learning at Chorley St Marys Catholic Primary and Nursery**

Science Substantive Key Knowledge and Concepts:							
Biology		Chemistry		Physics		Earth Science	
Living things and their environment (Animals, humans, plants, habitat)	Reproduction, inheritance and evolution (Evolution, inheritance, life processes, life cycles)	States of matter (Solids, liquids, gases)	Materials (properties and changes including reversible/ir reversible changes.)	Energy (Light, sound, electricity)	Forces (Friction, air resistance, gravity, magnets)	Earth and space (Seasons, day and night, solar system and beyond)	Rocks and fossils
Science Disciplinary Key Knowledge:							
Scientific Enquiry							
Observing over time	Identifying and classifying	Looking for patterns	Comparative and fair testing	Answering questions using secondary sources of evidence			
Working Scientifically							
Making predictions	Asking questions	Observation and measurement	Recording	Interpreting and presenting results	Setting up test	Evaluating	

## Implementation

At St Mary's we strive to ensure pupils experience high quality Science learning which both develops their substantive and disciplinary knowledge. Science units of learning are timetabled throughout most half terms explicitly, in addition to this, ongoing science units are taught across the whole year giving the children the opportunity to observe changes across a longer period of time. Opportunities available in our local area such as our school grounds and woodland, links with parents and connections with local secondary schools and STEM are taken throughout the year to enthuse the children, whilst creating vital links to the real world showing the importance of science around us.

### School Curriculum

Our curriculum follows the Programme of Study set out in the National Curriculum. Our teachers are expected to use the Plymouth Science scheme alongside the PLAN Support Materials and ASE exemplar materials as guidance to help them plan lessons.

### Planning & Teaching

The teaching of science in EYFS is in accordance with the EYFS national framework. Children are guided to make sense of their physical world and community through opportunities to explore, observe and find out about people, places, technology and environment. These are assessed according to the Development Matters attainment targets.

In Key Stages 1 and 2, teaching of science is planned using the National Curriculum 2014, the Plymouth Science scheme and the ASE and PLAN Support Materials, which are adapted to suit their children's needs.

Teaching in Key Stages 1 and 2 should be completed in the following order:

- Pre-assessment to ensure children have the prerequisite skills and knowledge (as per progression documents);
- Development of scientific knowledge, vocabulary and understanding of scientific concepts;
- Development of scientific skills through investigation and enquiry (using newly acquired knowledge and understanding);
- End of unit assessment.

### Roles and Responsibilities:

The Science Subject Leader will:

- Establish a secure profile of Science in school.
- Manage the implementation of the school policy, updating the policy and scheme of work on a regular basis in line with new initiatives
- Order, update and allocate appropriate and sufficient resources
- Model high quality teaching of Science
- Identify needs and arrange INSET so that all staff are confident in teaching and assessing Science
- Keep abreast of new developments and communicate these to staff
- Take an overview of the whole school planning to ensure that there is continuity and progression between year groups and learning is effectively planned for
- Support staff in developing pupils' capability within Science
- Attend appropriate courses and maintain links with the Lancashire advisory team

- Monitor and evaluate standards in teaching and learning in Science eg: looking at pupils' work and conducting pupil interviews
- Contribute to the School Development Plan on an annual basis to maintain and raise standards
- Assist colleagues in the planning and delivering of lessons
- Report to governors
- Use assessment of Science to inform future planning
- Identify opportunities for Science in the wider school curriculum.

The class teachers will:

- Plan and deliver Science lessons to their class using the Plymouth Science scheme.
- Ensure science lessons are carried out safely by speaking to the children about potential hazards and care of the equipment they are using
- Assess the work and progress of pupils and communicate to the subject leader.
- Identify any other opportunities for Science in the wider school curriculum.
- Have responsibility for the teaching, learning and assessment of Science and report on pupil progress to parents.

## Impact

### Progress and Assessment

Teachers should use the working scientifically ladders, overview of scientific learning and the progression of learning document to ensure work is planned to meet the expected standard or above, assess children's work and ensure progress.

Assessment for learning is continuously undertaken by teachers throughout the planning, teaching and learning cycle. Teachers assess children's work in science by:

- Observing pupils at work, individually, in pairs, in a group, and in classes.
- Questioning, talking and listening to pupils
- Considering work/materials/investigations produced by pupils together with discussion about this with them.

An overall assessment should be made at the end of each unit. At the end of each unit of work, class teachers should assess children's achievement in terms of scientific knowledge and skills. At the end of the year, these assessments should be used to make an overall judgement should be made on whether each child is meeting the expected standard or not.

### Review:

The subject leader will review the policy annually. Policy reviewed March 2024