



Science Policy

Mission Statement

We are inspired by the teachings of Jesus Christ who is at the heart of all that we do.

Working in unity with our families, parish and community, we encourage and support the children to grow in faith and reach their full potential in a happy, caring and loving environment.

Curriculum Intent Statement

It is our intent at Our Lady and Saint Edward's to provide children with a Science curriculum that enables them to explore and discover the world around them. We aim to deliver quality teaching and learning opportunities that encourage all children to deepen their knowledge and understanding of the world and to develop the skills associated with Science as a process of enquiry.

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Curriculum Aims

Aims of our Science curriculum at OLSE include:

- providing a wide range of opportunities for practical investigation and discovery
- inspiring our children through an engaging science curriculum
- preparing our children for life in an increasingly scientific and technological world
- promoting a positive image of Science so that children will see the purpose and importance of their learning in the wider world
- fostering concern about, and active care for, our environment
- helping our children acquire a growing curiosity and understanding of scientific ideas
- building our children's resilience, self-confidence and communication skills to enable them to work effectively both collaboratively and independently
- developing understanding and use of scientific language

Statutory Requirements

OLSE's Science curriculum is grounded in the statutory requirements of the National Curriculum 2014 and the EYFS Statutory Framework 2021. The programmes of study and attainment targets from these documents create the foundation of our Science curriculum. We ensure that across all Key Stages teaching and learning is centred upon the requirements set out for National Curriculum Science and EYFS Understanding the World.

Curriculum

We teach the National Curriculum objectives which have been organised into a year group knowledge and skills progression framework. This ensures that, within our scheme of work, skills and knowledge are built on year by year and sequenced appropriately to maximise learning for everybody.

Year groups have topic titles each half term with related concept words and a 'Big Question'. Science teaching and learning is a key part of each topic and often provides the stimulation for the 'Big Question'.

Planning and Organisation

We have a whole school 'Knowledge, Skills and Understanding Progressions for Science' document which outlines the Science objectives that each year group from EYFS to Year 6 will cover. In this document, knowledge, skills and understanding objectives are recorded for each year group under the different areas of Science e.g. 'Plants', 'Electricity'. This system of organisation enables staff to see clear progression across year groups. 'Working Scientifically' objectives for each year group are also set out within this document, showing how skills are developed and progress throughout the school. Enquiry based skills are recorded under the following titles;

- Asking questions
- Planning
- Measuring and presenting
- Considering and evaluating

Each year group have termly Curriculum Plans which set out the objectives that will be covered that term within their Science teaching and learning. Where applicable, links to Science will be made within other areas of the curriculum to develop the children's topical learning. Opportunities for practical enquiry and investigative learning are included in all Science units. Challenge is encouraged in lessons and children are asked to communicate and explain their understanding at a deeper secure level. Children are taught Science for approximately 2 hours per week.

As an enhancement to our Science curriculum we have an annual Science Week. Using a whole school focus / theme all class teachers plan a wide variety of learning activities which take place throughout the week. These can include collaboration across classes or key stages, whole school events, an emphasis on practical investigations and lots of opportunities for children to be inspired and excited by Science.

Assessment

We assess children's level of attainment and progress in science to inform and develop our teaching and learning. Assessment Recording Sheets, based on the Progression of Skills document, are used for ongoing assessment notes as teaching and learning takes place and summative assessment judgements at the end of units. Teachers have a different assessment focus for enquiry skills each half term to ensure that these are revisited and assessed as the year progresses. These sheets are then in turn used to inform and shape future planning.

The assessment sheets allow staff to record children who are:

- Working towards age related expectations
- Working at age related expectations
- Exceeding age related expectations

A variety of methods are used to support assessment. These include;

- discussions in which children's prior knowledge and understanding is assessed, particularly at the start of a new topic
- ongoing assessment notes and observations made against the objective being taught
- feedback, both verbal and written on marked work
- moderation discussions of science work across the school
- termly assessment judgements are made against age related expectations
- identification and monitoring of children that are not on track
- transition meetings allow opportunity to inform the next class teacher about each child's attainment and progress throughout the year

Inclusion

Science teaching in the school is about excellence and enjoyment for all. We adapt and extend the curriculum to match the unique circumstances of our children. To enable the delivery of an inclusive Science curriculum we:

- set suitable learning challenges;
- respond to children's diverse learning needs;
- aim to overcome potential barriers to learning for individuals and groups of pupils;
- ensure that support is provided appropriately during each lesson to ensure secure understanding based on the needs of the child.

The Progression of Skills document gives teachers a clear tool to support differentiation of learning. It enables them to see the prior learning linked to each area of their Science teaching allowing them to select relevant objectives at an appropriate level of attainment.

For children who require a specialised curriculum Science is integrated into their learning at an appropriate level. Due to the practical and 'hands on' nature of Science it is often a key element of children with SEND's learning, enabling them to explore the world around them.

Resources

Resources are available to support teaching and learning in each topic taught across the school. Children use a range of appropriate resources in practical investigative work including a variety of technology. Science resources are stored in a central location so that they can be accessed by any year group as required.