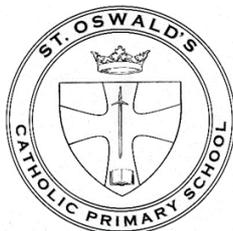


St Oswald's Catholic Primary School - Science Policy



Science

Updated November 2022

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Mission Statement

This is St Oswald's Catholic Primary School's policy for science and is set within the context of the whole school aims and Mission Statement:

Together with Jesus, we will Learn and Grow in Faith

Science Vision for the Curriculum

Our vision in St Oswald's is for all pupils to have access to an engaging science curriculum that encourages curiosity and discovery. We want science to be viewed and appreciated as a core subject with a high profile within our school curriculum. To achieve this, we will work to ensure that all children develop scientific skills that progressively offer an understanding of the world we live in and beyond. We will continue to work hard at maintaining the links between science and other subjects such as maths, computing, DT and geography.

When the children think of science as a school subject, they should not view it within the isolation of a single science lesson delivered once a week.

As a school, it is our job to offer a curriculum, which delivers the essential scientific knowledge, but also maintains the freedom and flexibility for the children to arrive at this knowledge through their own enquiries and discoveries.

One of the three aims for the new science curriculum of 2014 is for children to be 'equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future'. To make this possible, St Oswald's will endeavour to provide children with exciting experiences that are not just based in the classroom but also take place in the school grounds and on trips out of school. As much as possible, we will try to give children as many opportunities to get hands-on with their science work; as this is when they can really grow as independent learners. Through these experiences we hope to develop a life-long love of science within our children which can drive them on to discover its relevance in our world and its strong appeal as an exciting career choice.

Science Curriculum

Science is a core subject. In St Oswald's Catholic Primary School, science is taught through a consistent approach using the Early Years Framework and the National Curriculum.

We have a clear approach to planning by using a 'Big Question' to lead the learning at the start of each topic. This offers a useful assessment opportunity and can be used alongside prior learning knowledge to inform planning. At the end of each topic, progress and knowledge acquired can then be assessed against the learning objectives through the original question.

In KS1, a topic based approach is used in terms of long term and medium term planning to ensure that the children access a broad and balanced curriculum. Weekly planning will be based around the six areas of learning. Each year group will cover a range of topics enabling key skills and information to be delivered and developed. Reference will be made to both the National Curriculum and the EYFS Curriculum documentation. This will identify learning objectives. The long term planning will ensure that each curriculum area receives appropriate coverage and the topics will be structured to ensure that pupils can build upon prior knowledge and skills. There is a strong emphasis on the development of scientific vocabulary.

In KS2 the National Curriculum is used in order to inform long term and medium term planning. In each individual year there is a balance between learning new topics, consolidation of previous learning and opportunities to further develop this learning. Threaded throughout the teaching of science will always be an emphasis on using the correct scientific vocabulary.

In Years 3 and 4, we are trialling the use of the Haringey Primary Science curriculum. This programme mirrors the approach of Opening Worlds which we have successfully introduced for history and geography in LKS2. This approach places an emphasis on revisiting and linking new science content to prior learning and developing a real depth of knowledge of the big scientific concepts. There is also a real emphasis on vocabulary and STEM opportunities.

Science is a core national curriculum subject and there needs to be a balance between, a knowledge based approach and the delivery of science based skills in a practical context - 'Working Scientifically'.

In our school we endeavour to deliver opportunities for children to recognise the important role science takes in shaping the modern world and the future.

'Know more, remember more.'

Aims and Objectives

- * To fulfil the requirements of the EYFS and the National Curriculum.
- * To stimulate, arouse and sustain pupils' interest and enjoyment of science.
- * To contribute to and expand pupils' knowledge of the world around them.
- * To develop knowledge and understanding of scientific skills, ideas and processes and relate these to everyday experience.
- * To encourage the development of working scientifically and promote investigative skills.
- * To enable the children to learn about specific disciplines of biology, chemistry and physics (age appropriate).
- * To encourage the development of whole investigations.
- * To encourage the children to ask, question and seek answers.
- * To ensure that children are equipped with the appropriate scientific vocabulary

Planning and Organisation

Using the National Curriculum document and the Statutory Framework for the EYFS, the co-ordinators and staff develop long term and medium term plans to encompass the all disciplines of science.

In KS1, science is a specific area of learning called Understanding the World. Science in KS2 is taught as a discrete subject area. Plans are developed by the teacher and are placed in their teaching file after use in order to be adapted and evaluated. The class teacher is responsible for the implementation of the plans and the delivery of the activities. This takes into account the teachers' knowledge of the children and their learning styles. Opportunity to use both the indoor and outdoor environments are encouraged and planned for.

It is the role of the science co-ordinators to write and update the school science policy. The Science coordinator will monitor, moderate and review coverage, purchase resources and provide in service training as appropriate or as requested.

Cross Curricular links

Science skills can be developed across the curriculum. There are strong links to all areas of learning. Opportunities to work scientifically are identified and link the development of scientific knowledge and learning to other curriculum areas. Areas of the science curriculum that do not fit into specific topics will be taught independently.

Whole investigations using a cross curricular approach are encouraged and this gives opportunities for children to work through a whole scientific process. In the Infant's there is a topic based approach to learning. This allows a wide range of activities and lessons to be planned encouraging cross curricular links and an enhanced curriculum to be developed. In the Junior's, despite the fact science is taught discretely, opportunities for cross curricular learning are encouraged.

STEM weeks are used to celebrate and raise the profile of science across the whole school and demonstrate how science links to maths, DT and a range of other subjects. STEM week also seeks to place science in to a real life context with outdoor learning, trips and external workshops used to enhance this aspect of pupils' education.

Equal Opportunities and Inclusion

Special Educational Needs

As in all other areas of the curriculum, additional provision will be made for more able children or those with special educational needs. This may take the form of work differentiated by task or outcome, additional support or where there is physical disability; specific equipment. The class teacher will be responsible for identifying and planning for those needs with help from the Science Co-ordinator and/or SENCO if applicable. If a pupil is experiencing difficulties relating to dyslexia they will be supported in accordance with the school's dyslexia policy.

Assessment and Recording

All class teachers will use their assessment of the children in their class to plan for appropriate work and skill development. Teachers will be responsible for the assessment and recording of science in line with the schools' assessment policy. Class teachers will carry out formative assessments throughout the year, monitoring and evaluating pupil's progress. This may be drawn from work in books, tests or recordings. Teachers will produce a summative statement for each child in an end of year report. Teachers will pass on relevant information and progress levels to the child's next teacher.

In Early Years, the children will be assessed on entry to nursery and tracked through the use of the Statutory Framework for EYFS, this information will be used by the class teacher, assessment co-ordinator and the science co-ordinators to illustrate the children's progress.

St Oswald's is currently involved in a Liverpool Consortium Assessment Project in the West Derby Network. This project aims to develop a robust assessment system. Through working with other local schools there is a drive to consolidate a uniform assessment tool to guide us through the interim period supporting tracking and moderation.

The children will be tracked and assessed using the National Curriculum expected objectives alongside the following standards: Working below, On track and Working above. We will allow for any changes to assessment in accordance to government and local authority recommendations.

Safety

Teachers are responsible for the organisation and safety of the children within their own class and for any appropriate safety measures that need to be taken. A copy of 'Be Safe' (Association for Science Education) is available in the science resource area.

Resources

A science resource area exists allowing staff access to a range of resources. Staff are responsible for returning the science resources when they have finished using them. Any damages or low stock should be reported to the science co-ordinators as soon as possible. As funding allows, the range of resources will be updated and extended as necessary. We have recently purchased new units to help to organise the resources and make it easier for staff to find and use what they need to teach science.

Review and Evaluation

This policy is an active document and is monitored, reviewed and evaluated continually allowing for new legislation, initiatives and in-service feedback.

Date: November 2022