

# **English Martyrs Catholic Primary School**



*'A Learning Community in Christ'*

## **Science Policy**

### **Introduction**

Science is about developing an understanding and making sense of our environment, primarily through first-hand experience, exploration, interaction with scientific phenomena and developing scientific language. It is a body of knowledge built up through experimental testing of ideas. Science is also methodology, a practical way of finding reliable answers to questions we may ask about the world around us. Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live. We do this through investigation, using and applying process skills, as well as knowing facts and using scientific language.

### **Aims**

These aims are intended for all pupils in school. They are based on the children's needs and will include the science that is appropriate for them in line with the National Curriculum.

- To develop skills and knowledge which will help them to understand and appreciate the world around them
- To provide opportunities for practical activities, observation, exploration and enquiry, using a wide variety of resources and experiences
- To provide equal opportunities for all children regardless of gender, background and intellectual ability
- To develop an interest in and a scientific attitude towards this subject
- To provide continuity of curriculum experience and structured progression throughout the school to ensure that children are appropriately challenged
- To develop their interest in worldwide scientific issues
- To develop an awareness of their influence on others and the environment.

## **Objectives**

- To build upon the best primary practice of learning where possible through investigation and first-hand experience, within the child's physical environment
- To develop knowledge and understanding of important scientific ideas, processes and skills and to relate these to everyday experiences
- To learn about significant scientists and their discoveries
- To learn about ways of thinking and of finding out about and communicating ideas.
- To explore values and attitudes through Science
- To develop awareness of conservation issues.

## **Curriculum**

The children have access to the science curriculum for 1½ hours a week in KS1 and 2 hours a week in KS2. These hours may be taught in blocks of time provided the teaching is spread throughout the year. The science curriculum is covered within the context of cross-curricular learning within the framework of the Cornerstones Curriculum. Understanding, skills and knowledge are built upon as children progress through each year, and Key Stage throughout the school.

## **Experimental and Investigative Science**

Work in Science is recorded both in the children's topic books and in Science books in KS2. Ways children record work is at the discretion of the teacher and there are a range of scaffolds to support children in developing their scientific learning. In KS2, Science needs to be recorded in ways which clearly show the development of 'Working Scientifically' skills.

'Working scientifically encourages the ability to:

- Plan experimental work
- Obtain evidence
- Consider evidence.

The skills involved in 'Working Scientifically', predicting, hypothesising, raising questions, looking for patterns, interpreting data and evaluating help children to think scientifically. Investigative work is integrated into the curriculum and the children should do one whole investigation in each topic.

In the Reception class, where many children, because of age, are not required to study the National Curriculum, they will follow the Early Learning Goals. As the children near Y1, their learning will be related more to the National Curriculum.

ICT should be used to enhance the teaching of science through the use of digital thermometers, microscopes, digital cameras, videos, interactive whiteboards and CD Roms.

Visits beyond the classroom and visitors to the school will be used to support the children's learning.

### **Assessment and Record Keeping**

Class teachers will identify assessment opportunities in their medium term planning. The medium term plan will show the programme of study and clear skills progression. In this way, assessment will be used to inform planning. Records of pupils' progress are kept by their teachers and handed on at the end of each academic year.

Assessment is an on-going process brought about by:

- Observation of children working
- Discussion with children – before, during and after working
- Finding out activities
- Looking at/marking children's work
- Specific assessment tasks planned by the teacher
- Assessment tasks.

### **Record Keeping**

Children's achievement in Science will be recorded using the Cornerstones Curriculum assessment sheets.

### **School Grounds**

The immediate environment of the school is a rich resource for scientific learning. The pond and outdoor Science area provides opportunities for pond investigations and the study of life cycles. The wooded area, bug boxes and wormery support learning about mini-beasts and other biology focused learning.

Recycling activities take place during the school day when pupils are involved in recycling paper and composting fruit and vegetables from playtime and lunchtime.

### **Celebrations of Success and Display Policy**

It is important that children's success in Science is acknowledged and celebrated appropriately. This can be done through the careful displaying of Science work if appropriate, in the school. There are many areas available for this e.g. communal areas and classrooms.

Visits into school by speakers and educational visits outside school can be recorded through photographs and these can then be used as part of a display in school.

### **Essential Health and Safety Information**

It is important that all teachers are aware of the responsibility they have regarding health and safety both inside and outside the classroom. Teachers need to take account of both the children's and their own health and safety when involved in Science activities.

If teachers are unclear as to whether a material can be used in school they should refer to the Risk Assessment and COSHH sheets for permission to use a specific material and its method of use. These can be obtained from the Premises Manager.

Further information on health and safety issues and safety points specific to individual science investigations, teachers should refer to the following sources;

1. Science NC (National Curriculum) Document.
2. CLEAPPS booklet.
3. The Cornerstones Curriculum.

### **Homework Policy and Parental Involvement**

Teachers should refer to their year group's homework timetable to determine whether the children in that year group are set homework in Science.

### **Resource Management**

The schools Science resources are stored in the Science shed in the outdoor Science area and also in science boxes in our resources area.

We as a staff are responsible for returning Science equipment when we have finished using it. Any damaged equipment should be reported to the Science Subject Leader as soon as possible.

### **Induction for New Staff and Other Assistants**

The Science Subject Leader will ensure that new members of the teaching staff and other assistants have copies of the Science Policy and Curriculum Planning and understand how they are used. The Science Subject Leader will also ensure that new members of staff are aware of the science resources available and have a clear understanding of the essential health and safety information contained within this Science Policy.

## **Financial Commitment**

The financial commitment for Science will differ each year. However, in order that staff can deliver the Science Curriculum effectively, the following financial commitment is envisaged.

- An annual maintenance budget
- A budget for staff development
- Bids for specialised amounts of funding.

A financial commitment for Science will be presented each year to the Headteacher and Senior Leadership Team for discussion and approval.

## **Monitoring**

The subject will be monitored by:

- The Assistant Headteacher and Science Subject Leader checking medium term planning
- Classroom observations of teaching by members of the SLT and the Science Subject Leader
- Auditing science work in Topic Books
- Agreement trialling.

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