

Science Policy

Introduction

Science is taught across the age range of Foundation and Key stage 1, according to ELG and national Curriculum guidelines.

The school policy has been discussed by the whole staff and it is their responsibility to implement the policy. It has been approved by the Governing Body.

Aims and Objectives

Science teaches an understanding of natural phenomena. It aims to stimulate a child's curiosity in finding out why things happen in the way they do. It teaches methods of enquiry and investigation to stimulate creative thought. Children learn to ask scientific questions and begin to appreciate the way science will affect their future on a personal, national and global level.

The aims of science are to enable children to:

- Ask and answer scientific questions;
- Plan and carry out scientific investigations, using equipment correctly
- Know and understand the life processes of living things
- Know and understand the properties of material
- Know and understand the physical processes of materials, light, sound and natural forces
- Evaluate evidence orally, in written and using ICT where applicable

Foundation stage

Science in the foundation stage is taught as an integral part of the topic work covered during the year. The scientific aspect of the children's work is related to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. Science makes a significant contribution to the objective of the world, e.g. through investigating what floats and what sinks when placed in water.

KeyStage 1

KS1 curriculum planning is supported by the use of Folens Science and QCA scheme, adapted to our school needs.

Long Term Plans

This maps the scientific topics studies in each term. It is often combined with work in other subject areas to give enhances cohesion.

Medium Term Plans

Medium term plans give details of each unit of work for each term.

All Saints C of E Infant School and Nursery Unit

Short term plans

Weekly plans are written, allowing for cross-curricular activities and differentiated work where necessary, following the objectives for the medium term plans.

Topics are planned so that they build upon prior learning. There are opportunities for children of all abilities to develop their skills and knowledge.

The contribution of science to teaching in other subject areas

English

Science contributes significantly to the teaching of English in school by actively promoting the skills of reading, writing, speaking and listening. Some of the texts that the children study in the Literacy Hour are of a scientific nature. The children develop oral skills in science lessons through discussions (for example of the environment) and through recounting their observations of scientific experiments. They develop their writing skills through writing reports and projects and recording information.

Mathematics

Science contributes to the teaching of mathematics in a number of ways. The children use weights and measures and learn to use and apply number. Through working on investigations they learn to estimate and predict. They develop the skills of accurate observation and recording of events. They interpret tables, graphs and charts and use numbers in many of their answers and conclusions.

Information and Communication Technology (ICT)

Children use ICT in science lessons where appropriate. They use it to support their work in science by learning how to find, select and analyse information on the internet and on CD-ROMs. Children use ICT to record, present and interpret data and to review, modify and evaluate their work and improve its presentation.

PSHE

Science promotes the concept of positive citizenship.

Time Allocation

According to the recommendations set down by the National Curriculum we aim to teach 1 hour 30 minutes in KeyStage 1. This may be carried out weekly or in blocks.

Teaching Strategies

A variety of teaching and learning styles is used in science lessons. Our principal aim is to develop children's knowledge, skills and understanding. Sometimes this is through whole-class teaching, while at other times the children are engaged in an enquiry-based research activity. The children are encouraged to ask, as well as answer, scientific questions. They have the opportunity to use a variety of data, such as graphs, pictures and photographs. They use ICT in science lessons where it enhances their learning. They engage in a wide variety of problem-solving activities and discussions. Wherever possible, we involve the pupils in "real" scientific activities, for example, researching a local environmental problem or carrying out a practical experiment.

All Saints C of E Infant School and Nursery Unit

Children are of widely different scientific abilities in all classes and we ensure that we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. This is achieved in a variety of ways by:

- Setting common tasks which are open-ended and can have a variety of responses
- Setting tasks of increasing difficulty (we do not expect all children to complete all tasks)
- Providing appropriate resources
- Using classroom assistants to support the work of individual children or groups of children

Equal Opportunities

When planning teachers set high expectations and provide opportunities for all pupils to achieve, taking into account gender, disability, ethnicity, cultural and religious diversity and children with special needs.

Assessment and Recording

We assess children's work in science by making formal judgments as we observe them during lessons. On completion of a piece of work the teacher marks the work and comments as necessary.

In KS1 an assessment is carried out at the end of each topic and SAT's.

Foundation profiles are completed at the end of this stage.

Resources

Resources are stored in classrooms and in marked boxes in the hut.

Monitoring and Review

It is the responsibility of the science subject leader to monitor the standards and support the teachers.