



FULMER INFANT SCHOOL

SCIENCE POLICY

Introduction

At Fulmer Infant School, we strive for excellence in education by providing a safe, secure, caring environment, where all are valued and respected as individuals, enabling them to reach their full potential.

Aims and objectives

Our Science Policy follows The National Curriculum 2014 for Science Guidelines and aims to ensure that all children:

- Develop **scientific knowledge and conceptual understanding** through the specific disciplines of Biology, Chemistry and Physics
- Develop understanding of the **nature, processes and methods of Science** through different types of science enquiries that help them to answer scientific questions about the world around them
- Are equipped with the scientific knowledge required to understand the **uses and implications** of Science, today and for the future.

We plan our curriculum in three phases. We agree a long-term plan for each key stage. This indicates what topics are to be taught in each term, and to which groups of children. We review our long-term plan on an annual basis.

Purpose of Study – Why teach Science?

A high-quality Science education provides foundations for understanding the world. Science has changed our lives and is vital to the world's future prosperity. Through building key foundation knowledge and concepts, children should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how key knowledge and concepts can be used to explain what is occurring, predict how things will behave, and analyse causes. This understanding should be consolidated through their appreciation of applications of Science in society.

In teaching Science, we are developing in our children:

- A positive attitude towards Science and an awareness of its fascination
- An understanding of Science through a process of enquiry and investigation
- Confidence and competence in scientific knowledge, concepts and skills

- An ability to reason, predict, think logically and to work systematically and accurately
- An ability to communicate scientifically
- The initiative to work both independently and in co-operation with others
- The ability and meaning to use and apply science across the curriculum and real life.

Planning

School curriculum

The programmes of study for Science are set out year-by-year for Key Stage 1. Teachers will base their planning on the programmes of study for their relevant year groups.

Scientific knowledge and conceptual understanding

The programmes of study describe a sequence of knowledge and concepts. While it is important that children make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage.

Children should be able to describe associated processes and key characteristics in common language, but they should also be familiar with, and use, technical terminology accurately and precisely. They should build up an extended specialist vocabulary. They should also apply their mathematical knowledge to their understanding of Science, including collecting, presenting and analysing data.

The nature, processes and methods of science

'Working scientifically' specifies the understanding of the nature, processes and methods of Science for each year group and is not to be taught as a separate strand, but is linked to the programmes of study.

Attainment targets

By the end of each key stage, children are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Key Stage 1

The main focus of science teaching in Key Stage 1, is to enable children to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about Science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.

Children should read and spell scientific vocabulary at a level consistent with their reading and spelling knowledge at Key Stage 1.

'Working scientifically' must **always** be taught through and clearly related to substantive Science content in the programme of study.

Assessment

This is achieved through:

- Pupil observations
- Discussions with children
- Marking work
- Half-termly assessments.

Monitoring and Evaluation

The Subject Leader follows the Self Evaluation for Subject Leaders' Guidelines and is achieved through:

- Monitoring and evaluation of children's work
- Lesson observations
- Monitoring of planning.

Safety

Following COSHH guidance 'Be Safe'.

Parental Involvement

Following the guidelines in the whole School Policy on Parental Involvement in their Children's Education, parents may be involved in class based work if they can offer a particular skill or extend and compliment the class teacher's skills and knowledge.

Reporting to Parents

Following whole School Policy based on National requirements and LCC guidelines.

Marking Work

Refer to the whole School Marking Policy.