



Fritchley CE (Aided) Primary School

Science Policy

Introduction

It is important that children are given the opportunity to explore and understand the world in which they live. At Fritchley Primary and Nursery school, it is acknowledged that science is a key component in exploring and understanding the world. Science is about developing children's ideas and ways of working, enabling them to make sense of the world in which they live, through investigation, enquiry as well as using and applying process skills.

We believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability.

Teaching Aims:

We aim to teach science in ways that are imaginative, purposeful, well managed and enjoyable, giving clear and accurate teacher explanations and offering skilful questioning.

We aim to ensure cross curricular links are made between science and other subjects wherever possible.

Our science teaching is designed to:

- Prepare our children for life in an increasingly scientific and technological world.
- Promote concern about, and promoting active care for our environment.
- Helping our children acquire a growing understanding of scientific ideas.
- Helping develop and extend our children's scientific concept of their world.

New national curriculum:

Our science planning and teaching follows the new national curriculum, with the following aims, at different stages:

EYFS

In EYFS children are taught science within the concepts of:

Understanding the World

- To comment and ask questions about aspects of their familiar world, such as the place where they live or the natural world.
- To talk about some of the things they have observed, such as plants, animals, natural and found objects.
- To talk about why things happen and how things work.
- To develop an understanding of growth, decay and changes over time.
- To show care and concern for living things and the environment.
- To know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another.

Expressive Arts and Design

- To begin to be interested in and describe the texture of things

Physical Development

- To observe the effects of physical activity on their bodies.
- To know the importance for good health of physical exercise, and a healthy diet, and talk about ways to keep healthy and safe.

Key stage 1:

- Enable pupils to experience and observe different scientific phenomena;
- Encourage curiosity and questioning;
- Help to develop understanding of scientific ideas through different types of scientific enquiry;
- To encourage use of simple scientific language and communicate ideas in a variety of ways;
- Learning through the first-hand practical experiences with some use of secondary sources.

Lower key stage 2:

- To broaden children's scientific views and ideas of the world around them;
- To encourage pupil's own questioning and decision making about which lines of scientific enquiry to pursue, methodology for doing this and how to make it a fair test;
- Finding things out using secondary sources of information;
- Drawing simple conclusions, using some scientific language, through talk and then writing.

Upper key stage 2:

- To enable pupils to develop a deeper understanding of a wide range of scientific ideas through a variety of methods;
- To encourage pupils to ask their own questions about scientific phenomena and analyse functions, relationships and interactions more systematically;
- To select the most appropriate ways to answer science questions using different types of scientific enquiry; carrying out comparative and fair tests and using a wide range of secondary sources;
- Drawing conclusions based on data and observations;
- Using evidence to justify ideas and scientific knowledge and understanding to explain findings;
- To introduce more abstract ideas and help children recognise how these help to understand and predict how the world operates.

Overview of programmes of study

Y1 – plants, animals (including humans), everyday materials, seasonal changes.

Y2 – living things and their habitats, plants, animals (including humans), uses of everyday materials.

Y3 – plants, animals (including humans), rocks, light, forces and magnets.

Y4 – living things and their habitats, animals (including humans), states of matter, sound, electricity.

Y5 – living things and their habitats, animals (including humans), properties and changes of materials, earth and space, forces.

Y6 - living things and their habitats, animals (including humans), evolution and inheritance, light, electricity.

The overview to the new science curriculum states that schools are only required to teach the relevant programmes of study by the end of the key stage and that they have the flexibility to introduce content during an earlier key stage if appropriate.

Assessment and Monitoring

Children's subject knowledge, understanding and age expected level of competence as well as, aptitude for scientific investigation, are assessed and recorded after each unit of work on individual pupil assessment records.

The science co-ordinator will review these assessments bi-annually to ensure that assessment is being carried out and that objectives are being covered.

An overall end of year A.R.E will be reported to parents. Years 2 and 6 will also report teacher assessment results to Derbyshire County Council and DFE.

Teachers will ensure that their class is taught all the relevant new curriculum science objectives, within a 2-year rolling program. The science coordinator will monitor LTPs to ensure that coverage is full and complete.

Policy Review:

The science coordinator will review the science policy every two years.