

## **SCIENCE POLICY**

### **Introduction**

'Science stimulates and excites pupils' curiosity about phenomena and events in the world around them. It also satisfies this curiosity with knowledge. Because science links direct practical experiences with ideas, it can engage learners at many levels. Scientific method is about developing and evaluating explanations through experimental evidence and modelling. This is a spur to critical and creative thought.'

The National Curriculum for England, Science 1999

### **Aims**

We aim to;

- Stimulate and excite pupils' curiosity about changes and events in the world;
- Satisfy this curiosity with knowledge;
- Engage pupils as learners at many levels through linking ideas with practical experience;
- Help pupils to learn to question and discuss scientific issues that may affect their own lives;
- Help pupils to develop, model and evaluate explanations through scientific methods of collecting evidence using critical and creative thought;

### **Early Years Foundation Stage**

Pupils in Reception follow the Early Learning Goals. They access science through the learning area 'Knowledge and Understanding of the World'.

### **Key Stage 1**

At Key Stage 1 pupils observe, explore and ask questions about living things, materials and physical phenomena. They begin to work together to collect evidence to help them to answer questions and link them to simple scientific ideas. They begin to evaluate evidence and consider whether tests and comparisons are fair. They use reference materials to find out about scientific ideas. They share ideas and communicate them using scientific language, drawings, charts and tables with the help of ICT if it is appropriate.

### **Key Stage 2**

At Key Stage 2 pupils learn about a wider range of living things, materials and physical phenomena. They make links between ideas and explain things using simple models and theories. They apply their knowledge and understanding of scientific ideas to familiar phenomena, everyday things and their personal health. They think about the effects of scientific and technological developments on the environment and in other contexts. They carry out systematic investigations, working on their own and with others. They use a wide range of reference sources in their work. They talk about their work and its significance, using a wide range of scientific language, conventional diagrams, charts, graphs and ICT to communicate their ideas.

### **Equal Opportunity**

We are committed to providing a teaching environment conducive to learning. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability.

### **Working procedures**

Science is a core subject of the National Curriculum. In Key Stages 1 and 2, science is usually taught through a thematic approach and as such, there is no set model for the amount of time given to science

on a weekly basis. The time spent may vary from term to term and in each topic taught. Planning takes into account that the school places a high emphasis on the development of pupils' skills of scientific enquiry (Sc1). These skills are taught alongside the knowledge and understanding of life processes and living things (Sc2), materials and their properties (Sc3) and physical processes (Sc4).

### **Monitoring**

Monitoring of the standards of children's work and the quality of teaching in science is the responsibility of the science co-ordinators to ensure the continuity and progression throughout the school. Co-ordinators will monitor science throughout the school, through a variety of methods including work sampling, pupil conferencing, lesson observations and data analysis.

### **Assessment**

At the end of each QCA unit, teachers will give a teacher assessment of the children's understanding of each topic by referring to the expected outcome detailed in each unit. Teachers analyse pupils' progress in the units of work they have completed at the end of each school year to complete the annual report to parents.

#### *Early Years*

Science will be assessed as part of the objectives set out in the Early Learning Goals (ELGs), which underpin the curriculum planning for children aged three to five. They will also be recorded half-termly on pupils' Foundation Stage Profiles.

#### *Key Stages 1 and 2*

Teachers make an assessment of the children's work in science at the end of Years 2 and 6, which is reported to parents.

### **Resources**

A variety of scientific resources are available in school. Resources are stored in a central area in each Key Stage. The co-ordinators monitor these resources and replenish them as necessary. The QCA Scheme forms the framework of teaching, but there are supplementary materials from the LCP.

### **Health and Safety**

Science is taught in line with our general Health and Safety Policy. In their planning of activities, teachers will anticipate likely safety issues. They will also explain the reasons for safety measures and discuss any implications with the children. Children should also be encouraged to consider safety for themselves, others, the environment and the resources they use, when undertaking scientific activities. Parents must give their written consent, before children can be taken out of school to participate in science activities. Teachers must also make sure that appropriate risk assessments have been carried out before the visit.

DATE AGREED

July 2009

DATE FOR REVIEW

July 2011