



Science Policy

Date of policy:	January 2016
Date last review adopted by governing body:	28/01/16
Frequency of review:	3 years

1. Introduction

Learning about science offers the children the opportunity to:

- gain foundations for understanding the world
- experience and observe phenomena, looking more closely at the natural and humanly constructed world around them
- recognise the power of rational explanation and develop a sense of excitement and curiosity
- 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 and the economy.

This policy should be referred to in conjunction with the policies on teaching and learning, assessment, marking, SEND and display.

2. Aims

The aims of Science teaching at our school have been revised in line with the National Curriculum 2014. Our aims for children are that they:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- have opportunities to observe 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
- have first-hand practical experiences, but also some use of appropriate secondary sources, such as books, photographs and videos
- 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
- can read and spell scientific vocabulary at a level consistent with their increasing word-reading and spelling knowledge at key stage 1
- learn to ask simple questions recognising that they can be answered in different ways
- learn to observe closely, using simple equipment
- perform simple tests
- identify and classify
- use their observations and ideas to suggest answers to questions.

3. Teaching and learning

All class teachers have the freedom to develop their teaching of science in a way that suits their class. This may include a variety of teaching and learning opportunities, such as: whole-class teaching,

enquiry-based research, asking and answering science questions, reports, using a variety of data, such as graphs, pictures, and photographs, drama, discussions, collecting and presenting data, problem solving and researching scientific problems or current issues.

4. Curriculum overview

Science is taught with a cross curricular approach where suitable. The long term curriculum maps have been produced using guidance from the National Curriculum 2014 and the statutory themes have been allocated suitably for each year group.

Science is taught in the Foundation Stage when opportunities occur as part of the themed work covered during the year. Science makes a contribution to the Foundation Stage Profile objectives of developing a child's knowledge and understanding of the world.

5. Differentiation

Differentiation can be provided in a number of ways: by outcome, by adult support provided, by differentiating resources, by differentiating through planning. Teachers differentiate in the way in which is considered most appropriate for the child, group or objective being taught.

6. Equal opportunities

Where children have a physical disability or have SEND, we aim to provide resources and learning experiences that will support their learning in science. We do this by setting suitable learning challenges, responding to each child's different needs and providing learning opportunities that enable all pupils to make progress.

7. Assessment, recording and reporting

Class teachers assess children's work in science by making informal judgements as they observe them during each science lesson. All work in books is marked in accordance with the school policy. Each term the teacher makes a summary judgement about the work of each pupil in relation to the National Curriculum attainment guidance.

8. Subject Leaders' Role

- To facilitate the development of Science identified in the School Development Plan.
- To review Science Policy periodically.
- To work collaboratively with staff to promote continuity and progression.
- To create and monitor Schemes of work.
- Monitoring including lesson observations, pupil voice surveys, work sampling and climate walks.
- To attend relevant INSET courses, and encourage and support staff where possible.
- To organise and if relevant deliver staff training.
- Monitoring and organisation of centrally held resources.
- Purchase of resources in consultation with staff and in line with the allocated budget

9. Role of Governors

Governors determine, support, monitor and review the school policies. They support the use of appropriate teaching strategies by allocating resources effectively. They ensure that the building and equipment are safe. They monitor pupil attainment across the school and ensure that staff development and performance management promote good quality teaching.

10. Resources

Science resources are stored in the Science resource cupboard or in the classroom in which they are most regularly used.

11. ICT/E-Safety

Interactive whiteboards are extensively used by teaching staff, the whole class, groups or individuals throughout all aspects of lessons. ICT is used in maths lessons where appropriate. A range of resources including I-pads, tablets and Beebots are used to support and enhance learning.

Our E-safety/Internet use policy applies to all use. E-safety depends on effective practice at a number of levels:

- Responsible ICT use by all staff, pupils and their parents
- Sound implementation of E-Safety policy and practice in both administration & curriculum.
- Safe and secure network and broadband connection from Essex County Council

12. Equality statement

“The governors and staff are committed to providing the full range of opportunities for all pupils regardless of gender, disability, and ethnicity, social, cultural or religious background. All pupils have access to the curriculum and the right to a learning environment which dispels ignorance, prejudice or stereotyping.”

13. SEND

Through our assessment procedures we aim to identify children with additional needs to enable all children to achieve their full potential. Those children who are experiencing difficulties are given extra support as outlined in their One Plans and Class provision maps. This is monitored by the Class teacher and SENCO. We provide learning opportunities that are matched to the needs of the children in line with our SEND and Inclusion policies. Teachers will ensure that they match work to differing levels of ability and development, supporting those who need to make progress in smaller steps. Intervention support programmes are run to scaffold the learning of the children making less than expected progress.

14. Able and Gifted children

Children who show a particular aptitude for science will have opportunities to work on more challenging investigations and problem solving activities within their class. These children will also be challenged through direct questioning within lessons. Activities will be planned to develop mastery of skills and ensure a deepening breadth of study.