Science

St Werburgh's C of E Primary School

Date

Written by

To be revised:

Approved: [illegible]

5-5-17

Science Policy

Introduction
This policy has been written so that present and future staff, Governors and other interested parties may have an understanding of our school's approach to science. It has been developed by reference to a wide variety of resources and in discussion with a large number of people. It will be open to continuous review.

Rationale
Science is important in all aspects of modern life. Children have a natural interest in the world around them and science makes a valuable contribution to their understanding. It is also one of the three core subjects of the national curriculum, and therefore forms an important part of the education of all pupils.

Aims
Through the teaching of science, the school aims to:

- Develop scientific knowledge and conceptual understanding
- Develop understanding of the nature, processes and methods of science through scientific enquiry.
- Equip children with scientific knowledge required to understand the uses and implications of science today and for the future.
- To build up a specialist vocabulary.

We also aim to develop the following personal attributes and qualities in children;

- Curiosity – showing interest in new things, using questions to find out about the world
- Originality – producing new ideas using imagination
- Perseverance – not giving up when extra effort is needed
- Open-mindedness – accepting new ideas, listening to other points of view
- Self-criticism – being prepared to find ways to improve work
- Responsibility – attempting tasks, yet knowing when to ask for help
- Co-operation – being willing to work as a team and negotiate through discussion
- Independence – being able to make decisions

Science in the National Curriculum
Science in the National Curriculum is divided into two parts. These are:

1. Working scientifically
2. Scientific knowledge

Working scientifically:

- Observing over time
- Pattern seeking
- Identifying
- Classifying and grouping
- Comparative and fair testing
- Researching using secondary sources
- Collecting, analysing & interpreting data.

Scientific knowledge

- Plants, animals & humans (and their habitats)
- Seasonal changes
- Materials and their properties
- Light & sound
- Physical processes
- Earth & Space
- Evolution & Inheritance

Through the science curriculum, children can also learn about aspects of personal, social and health education (PHSE) and citizenship. Science also offers a range of contexts for the development of literacy, mathematics, information and communication technology (ICT) and thinking skills.

Teaching methods
We believe that the best way to learn science is through first-hand experience and emphasis is placed upon scientific enquiry. Science is also taught through topic work and cross-curricular links are made wherever appropriate.

Continuity and progression
The content of the curriculum is based on the programmes of study for Key stages 1 and 2. Each class is assigned parts of each attainment target to ensure a balance. All the statements will be visited at least twice in each Key stage. The work in each year builds upon skills and knowledge gained in previous years.

Equal opportunities and differentiation
All children at St Werburgh's are given equal access to the science curriculum irrespective of gender, race or disability. As part of our school's policy on inclusion, we ensure that we respond to pupils' diverse needs and overcome potential barriers to learning.

Resources
Resources fall into two categories:

(a) The environment in which pupils live and work. This includes the school, homes and the pupils themselves
(b) Apparatus and equipment which is stored in the science cupboard in the infant wet area.

Safety in science
The practical nature of science, and the encouragement given to children to experiment, means that science represents special problems with regard to safety. These problems are overcome in the following ways:

- Science is taught in a structured way
- Teachers make themselves aware of potential hazards
- The attention of pupils drawn to potential hazards
- Pupils are instructed in ways of working safely
- Pupils are taught to act in a responsible manner

Assessment and record keeping
Continual assessment is used to monitor work and plan appropriately. Comments on progress and performance are included in the annual report to parents. All work is marked in accordance with the school's marking policy.

The role of the Head teacher
The Head Teacher's role is to encourage colleagues to teach science effectively. She has a responsibility to ensure that the policy and schemes are implemented and for bringing the policy to the staff for periodic updating.

The role of the science co-ordinator
The co-ordinator, working with the Head, has the responsibility for progressions and co-ordination of teaching the Science curriculum. She has the responsibility for the day to day maintenance of the science equipment and, alongside the Head, for the purchase of new equipment and materials. The co-ordinator will try to support colleagues who are planning science activities by talking to staff on an informal basis and by raising matters relating to science in staff meetings.

Topics taught and timescale
The topics taught will be in line with the EYFS learning goals and the national curriculum. 'Working Scientifically' will not be taught as a separate strand, but through the science curriculum topics.