

Christ Church (C of E) Primary School

Science Policy

1. Introduction

At Christ Church C of E Primary School, we believe that a high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils 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 science can be used to explain what is occurring, predict how things will behave, and analyse causes.

2. Aims and Objectives

- To encourage the children to work and think scientifically.
- To stimulate the child's interest in science.
- To provide a variety of scientific experiences which are realistic and relevant to the child's future.
- To provide opportunities for a child to fulfil their scientific potential.
- To develop each child's understanding of scientific concepts and their ability to apply them in everyday contexts today and in the future.
- To facilitate an inquisitive and motivated approach to science through discussion, investigation and active learning.
- To develop the children's ability to record their learning in a variety of ways.

3. The contribution of science to teaching in other curriculum areas.

Literacy: Science contributes significantly to the teaching of English in our school by actively promoting the skills of reading, writing, speaking and listening. Some of the texts that the children study in the Literacy Hour are of a scientific nature. The children develop oral skills in science lessons through discussions (for example of the environment) and through recounting their observations of scientific experiments. They develop their writing skills through writing reports and projects and by recording information.

Numeracy: Science contributes to the teaching of mathematics in a number of ways. The children use weights and measures and learn to use and apply number. Through working on investigations, they learn to estimate and predict. They develop the skills of accurate observation and recording of events. They use numbers in many of their answers and conclusions.

ICT: Children use ICT in science lessons where appropriate. They use it to support their work in science by learning how to find, select, and analyse information on the Internet. Children use ICT to record, present and interpret data and to review, modify and evaluate their work and improve its presentation.

PSHE: Science makes a significant contribution to the teaching of personal, social and health education. This is mainly in two areas. Firstly, the subject matter lends itself to raising matters of citizenship and social welfare. For example, children study the way people recycle material and how environments are changed for better or worse. Secondly, children benefit from the nature of the subject in that it gives them opportunities to take part in debates and discussions. They organize campaigns on matters of concern to them, such as helping the poor or homeless. Science promotes the concept of positive citizenship.

Spiritual, Moral, Social and Cultural Development: Science teaching offers children many opportunities to examine some of the fundamental questions in life, for example, the evolution of living things and how the world was created. Through many of the amazing processes that affect living things, children develop a sense of awe and wonder regarding the nature of our world. Science raises many social and moral questions. Through the teaching of science, children have the opportunity to discuss, for example, the effects of smoking and the moral questions involved in this issue. We give them the chance to reflect on the way people care for the planet and how science can contribute to the way we manage the earth's resources. Science teaches children about the reasons why people are different and, by developing the children's knowledge and understanding of physical and environmental factors, it promotes respect for other people.

4. Equal Opportunities / Special Educational Needs / Gifted and Talented.

The school equal opportunities policy clarifies the way in which we at Christ Church strive to ensure the equal provision for all children regardless of their gender, race, religion, class or ability. We achieve these goals in Science by:

- Involving all the children in oral work
- Planning differentiated work to suit the ability of the children
- Allowing access to materials and equipment
- Ensuring that course content is relevant to all pupils
- Having high expectations of every child
- Ensuring examples are free from stereotyping

5. Assessment and Recording

At Christ Church, monitoring is very much a part of the ethos of our learning. We monitor to reflect on current practice, collect evidence of children's learning, see in practice the progression and continuity throughout the school, see which resources are being widely used and which resources we would like to be using. The monitoring 'outcome' is to embrace the strengths of individual classes, identify needs, and as a school, set targets to aim for which will maintain, and where possible improve current standards and practices.

In Science we will also assess by:

- Talking to the pupils and asking questions.
- Discussing the work with the pupil.
- Looking at the work and marking against the learning objective.
- Observing the pupils carrying out practical tasks.
- Pupils self-evaluation of their work.

6. Resources

A variety of scientific resources are available in school. A few of these resources are classroom based; however, the majority are stored in a central location in the school staff room. The co-ordinator monitors these resources and replenishes them as necessary.

7. Safety

All staff will follow COSHH guidance 'Be Safe'. Teachers must plan safe activities for science and complete a risk assessment if necessary. Teachers and teaching assistants need to be aware of health and safety procedures when using equipment/food in science lessons. Pupils must be aware of the need for personal safety and the safety of others during science lessons.

8. Foundation Stage

Science in the Reception class is taught as an integral part of the topic work covered during the year. The Foundation stage curriculum is based around the Seven Areas of Learning set out in the Early Learning Goals. There is scientific content within the learning area Knowledge and Understanding of the World.

9. Curriculum

The programmes of study for science are set out year-by-year for key stages 1 and 2 in the national curriculum. Class teachers are responsible for ensuring that all the relevant statutory content is covered within the school year. The national curriculum gives a full breakdown of the statutory content to be taught within each unit. Non-statutory guidance is also provided which staff members are encouraged to use.

Reception	Ourselves	Mini Beasts	Magnets and Springs	Growth and Plants	Plants Growth
Year 1	Plants	Animals, including Humans	Everyday Materials	Seasonal Changes	
Year 2	Living Things and their Habitats	Plants	Animals, including Humans	Use of Everyday Materials	
Year 3	Plants	Animals, including Humans	Rocks	Light	Forces and Magnets
Year 4	Living Things and their Habitats	Animals, including Humans	States of Matter	Sound	Electricity
Year 5	Living Things and their Habitats	Animals, including Humans	Properties and Changes of Materials	Earth and Space	Forces
Year 6	Living Things and their Habitats	Animals, including Humans	Evolution and Inheritance	Light	Electricity

Policy Date: November 2017