

THE BELLBIRD PRIMARY SCHOOL
Science Policy



Introduction

Science stimulates and excites children's curiosity about the world around them. As a practical subject, the development of concepts is based on first-hand exploration. Science is a fundamental part of everyday life and the study of science is a necessity to enable the children to develop confidently within an increasingly scientific and technological world.

Aims

At The Bellbird Primary School we aim to:

- Develop the children's natural curiosity about the environment and help them to seek explanations.
- Develop caring and sensitive attitudes towards living things and the environment.
- Encourage children to create hypotheses, design and carry out experiments, make observations and to record results.
- Encourage imagination, inspirational thinking and receptive minds.
- Use scientific methods of investigation.
- Develop responsible attitudes to health and safety.
- Help the children become independent learners.
- Develop the children's social skills to work cooperatively with others.
- Make links between science and other subjects.

Objectives

To achieve these aims we will:

- Offer opportunities for active exploration and first hand experience where appropriate.
- Build on the children's own experiences and ideas of the world, addressing any misconceptions they may have.
- Offer a child-centred and practical approach to science, therefore encouraging "ownership" of ideas and concepts.
- Provide the children with an enjoyable experience of science, so that they will develop a deep and lasting interest and may be motivated to study science further.
- Develop the use of scientific language, recording and techniques.

- Develop the use of ICT in investigating and recording.
- Enable our children to become effective communicators of scientific ideas, facts and data.

Statutory Requirements

In the Foundation Stage, science is delivered through the 'Knowledge and Understanding of the World' area of learning, although there are aspects of the subject in all areas of learning. It is important that the scientific potential in play activities is recognised and children are given time to explore.

The National Curriculum for Science provides the statutory framework for the teaching of Science.

The national curriculum for science aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of **biology, chemistry and physics**
- develop understanding of the **nature, processes and methods** of science through different types of **science enquiries** that help them to answer scientific questions about the world around them
- are equipped with the **scientific knowledge** required to understand the **uses and implications** of science, today and for the future.
- To develop their understanding of scientific vocabulary.
- To develop a knowledge of scientists and their work (current and historical) and understand their contributions to the field.

The Approach of the School

In the Foundation Stage, Knowledge and Understanding of the World is delivered through topics. Activities are planned to enable the children to achieve the Early Learning Goals by the end of the Foundation Stage.

In Key Stages 1 and 2 we deliver science as a discreet subject following the objectives and progression as outlined in the National Curriculum, although science is linked into the topic as much as possible. The class teacher teaches Science and there are opportunities for whole class, group, paired and individual work. Science is usually delivered in the classroom although the school grounds are utilised and where appropriate field trips are carried out.

Generally, one unit may be taught in each half term. Because of mixed-age classes in the school, some units may be taught out of their year group. Some units may be moved between years, or amalgamated, where appropriate.

The purchase of Science Bug for whole school planning and termly monitoring of planning and looking at children's work, ensures breadth and balance in the curriculum. It also provides opportunities for continuity and progression.

Pupils' Record of Their Work

Our aim is for children to be able to communicate their observations, ideas and findings effectively. Children use different forms of scientific recording. These include: verbal, symbolic, pictorial, written and graphical.

Assessment and Record Keeping

Teacher assessment is continuous and on going. In the Foundation Stage the children will be assessed against the Knowledge and Understanding of the World assessment scales in the Foundation Stage Profile.

Science is formally reported on in children's annual reports with a summative Teacher Assessment at the end of Key Stage 1 and 2.

Health and Safety

We aim to develop in children:

- An appreciation of the need for safe action in scientific exploration and investigation.
- The ability to handle materials and equipment with care.
- An awareness of the need for safety and responsible behaviour in everyday life.

Developing children's awareness of dangers and safety feature in the programmes of study for Science and are planned into the schemes of work where appropriate.

Safety must always be taken into account when planning Science activities.

Equality

We believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, physical or intellectual ability. Pupils with special needs will be considered when planning units of work and opportunities for differentiation will be planned for both more able and less able pupils at the medium and short term planning stage. We recognise the particular importance of first-hand experience for motivating children with learning difficulties. We recognise that science may strongly engage our gifted and talented children, and we aim to challenge and extend them.

Spiritual, moral, social and cultural development through science.

Science provides opportunities to promote:

- *Spiritual development*, through children sensing the natural, material and physical world they live in.
- *Moral development*, through helping children see the need to draw conclusions using observation and evidence rather than preconception or prejudice.
- *Social development*, through drawing attention to how different interpretations of scientific evidence can be used in discussing social issues.
- *Cultural development*, through helping children recognise how scientific discoveries and ideas have affected the way people think, feel, create, behave and live.

Review and Monitoring

All teachers will be responsible for evaluating science in their classroom. When possible discussions with children will take place along with a scrutiny of work.

This Policy will be monitored and reviewed in 2018.