



# Science

## October 2020

Last reviewed by SD	October 2020
Next review date	October 2023

# Beckley Church of England Primary School

## Science

### Our Vision

Promote and achieve excellence in all areas of school life. The school will be a place and a community where all children are happy and safe, where they can flourish and achieve their best in a caring, inclusive environment.

**Kindness** is our core value, underpinning our school vision: **“Be kind to one another, tender-hearted, forgiving one another”** *Ephesians 4:32*

### Curriculum Intent

Each child will start learning – seeking knowledge developing skills – to prepare them to make their way and to contribute, to make changes and to thrive in our changing world of challenge and delight. In this we aim to:

- Develop foundations and individual enthusiasm for life-long learning.
- Inspire curiosity, confidence and creativity in all children.
- Teach the children with their strengths and interests in mind.
- Create many opportunities to spark interest for all children.
- Encourage a secure and positive attitude towards others and the environment.
- Be ambitious for every child, whatever their prior attainment or need.
- Encourage resilience through understanding the importance of making mistakes, listening and responding to feedback and being open-minded.

### Aims and Rationale

Science is an area which leads to a greater understanding of the world around us, providing a body of knowledge built up through experimental testing of ideas. It is also a practical way of finding reliable answers to questions we may ask about the world around us. Science at Beckley provides opportunities for children to develop their knowledge and understanding of the world in which they live, through both practical experience and from other sources of information.

Our curriculum aims to ensure that all pupils:

- relate science to everyday life.
- develop an inquiring mind and a scientific approach to problem-solving.
- develop attitudes of curiosity, tolerance and perseverance.
- are prepared for an increasingly scientific and technological world.
- foster concern for, and actively care about, our environment.

Our school is committed to fostering positive attitudes towards the subject, whilst ensuring that all pupils develop deep conceptual understanding in line with their age group. Teachers will actively diagnose and address perceived 'gaps' in conceptual understanding.

We believe in the importance of science in nurturing curiosity and creativity.

Through a combination of investigative skills, children will develop a better and more scientific understanding of the world in which we live.

## Curriculum coverage and Progress of Skills

All class teachers are involved in the planning of Science in their classes to ensure that our provision meets (and often exceeds) the requirements of the National Curriculum. Topic overviews and Key Objectives for each topic are used and shared with the children to ensure full coverage and progress over time. Planning resources include *The Hamilton Trust* and *Headstart Primary* in addition to other resources that teachers find appropriate to meeting the needs of their pupils.

Science is taught for an average of two hours per week, although the actual time will fluctuate depending upon other school activities (such as Book Week or Sports Day) which may be happening.

Emphasis is placed on:

- Encouraging children to raise questions which lead them to search for their own answers to make sense of what they consider to be the real world;
- Stimulating children by effective questioning, by both supporting and challenging their thinking;
- Ensuring that children are free to work in a safe and secure environment which values the ideas of individuals;
- Providing a working environment that is stimulating, enriching and challenging;
- Ensuring that children are actively involved in their own learning;
- Challenging children through a variety of experiences which enable success and progression;
- Providing a variety of teaching methods and experiences so that children will be able to acquire the necessary skills, knowledge and understanding relevant to their ability;
- Developing children's understanding and use of scientific language;
- Engaging (where possible) with the science community in Oxford.

The science coordinator monitors the planning, continuity and progression of science throughout the school through lesson observations and teacher planning. In addition, there is an annual staff meeting to look at children's science work and ensure consistency of approach and standards. Feedback to pupils is given through discussion and regular marking of work with clear and constructive comments.

## Assessment, Recording and Reporting

Assessment is undertaken in a variety of ways - through written work, oral discussion and other observations of their understanding.

Formative assessment is carried out at the beginning of each unit, noting common misconceptions and gaps in understanding, with summative assessment carried out at the end of the unit.

Termly progression grids are used to highlight **Core Knowledge, Important Skills** and **Key Vocabulary** in the particular unit which is being studied.

## Monitoring

The monitoring of science teaching is undertaken by the Science coordinator alongside the SLT in order to ensure good quality delivery of the curriculum. This is completed through:

- the monitoring of pupils' work;
- discussion with class teachers;
- learning walks;
- lesson observations;
- data.

## Inclusion

We provide support and resources for success and challenge at all levels. We provide equal opportunities for all learners regardless of age, gender, ethnicity, impairment, medical concerns, attainment or background.

## Resources

Science resources are located in the Science Cupboard in the Library which is organised into subject areas. There is a stock of books on a variety of science areas, plus classroom Chromebooks may be used for researching different science topics.

## Health and Safety

General classroom safety is the responsibility of the classroom teacher. Teachers carry out risk assessments for any activity that has safety implications and can access the 'Be Safe' document - The Code of Practice for Health and Safety in Primary Science.

## Review arrangements

The implementation of this document will be monitored by the Science Coordinator and the Senior Leadership Team and will be updated in line with new initiatives. This document will be reviewed in October 2023.