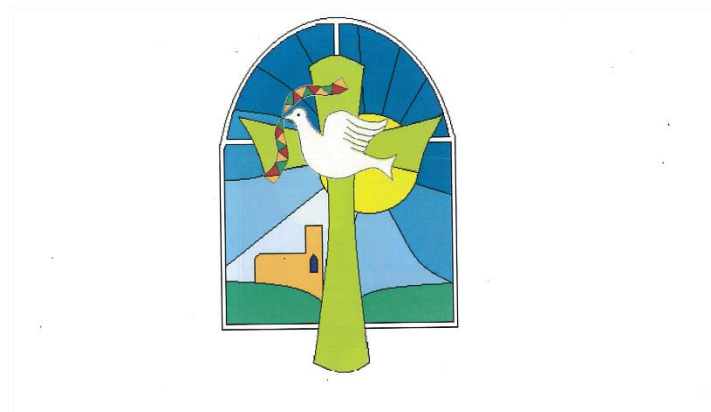




Beswick and Watton CE(VC) Primay School,
Middleton on the Wolds CE(VC) Primary School and
Bishop Wilton Primary School

The Wolds Federation

Science Policy

“The child Jesus grew and became strong; he was full of wisdom gaining favour with God and with people.”
Luke 2:54

Date: October 2020
Review Date: October 2021

1. Our rationale for teaching science

Science is a body of knowledge built up through the experimental testing of ideas. Science is also methodology, a practical way of finding reliable answers to questions we may ask about the world around us. Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills. Science is also a collaborative activity where ideas and suggestions are shared and investigated together. Through practical activities and team work, children experience and learn how to work together have mutual respect for one another and value social cohesion.

We believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability. Our aims in teaching science include:

- Preparing our children for life in an increasingly scientific and technological world.
- Fostering concern about, and active care for, our environment.
- Helping our children acquire a growing understanding of scientific ideas.
- Helping develop and extend our children's scientific concept of their world.
- Developing our children's understanding of the international and collaborative nature of science.

Attitudes

- Encouraging the development of positive attitudes to science.
- Building on our children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and responsibility.
- Building our children's self-confidence to enable them to work independently.
- Developing our children's social skills to work cooperatively with others.
- Providing our 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.

Skills

- Giving our children an understanding of scientific processes.
- Helping our children to acquire practical scientific skills.
- Developing the skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Developing the use of scientific language, recording and techniques.
- Enabling our children to become effective communicators of scientific ideas, facts and data.

2. Our teaching aims

- Teach science in ways that are imaginative, purposeful, well managed and enjoyable.
- Encourage and support children to ask questions about the world and use scientific processes to try and answer them, with a focus on scientific enquiry.
- Support children to make links between science and other subjects.

Science is a core subject in the National Curriculum.

3. How science is structured through the school

Planning for science is a process in which all teaching staff are involved. Delivering a broad and balanced science education to our children is a core principle of our school. Science teaching in the school is about excellence and enjoyment. We adapt and extend the curriculum to match the unique circumstances of our school.

KS1 and Foundation stage teachers teach science for a minimum of one hour each week.

KS2 teachers teach science for a minimum of two hours per week.

In KS1 and Foundation stage, a minimum of one third of lessons overall include practical scientific enquiry.

In KS2, a minimum of 50% of lessons overall include practical scientific enquiry.

The school ensures that a broad and balanced science curriculum is followed in which enquiry is at the heart of our children's scientific learning.

The process of teaching science within our schools is based on a four year rolling cycle for key stage two and a two-year cycle for key stage one. These are available on the school website and were agreed after whole-staff discussion. It ensures progression between year groups and guarantees topics are revisited. Teachers adapt and modify the model plans to suit their children's interests, current events, their own teaching style, the use of any support staff and the resources available. Our long term plans are regularly reviewed and adapted if necessary.

To better suit the needs of our mixed-age groups, units may have been moved between years or amalgamated, where appropriate. However science is taught every half term throughout the school year and is aligned to our pupil progress documents.

4. Our approach to science

- We use ICT whenever appropriate in science. Children are given the opportunity to practice science skills and enhance presentations using carefully-chosen software.
- We use the school's shared area to share science resources e.g. videos and software.
- The school combines these secondary sources with first-hand scientific enquiries, building children's science skills.
- We actively teach science skills, and reinforce learning with selected enquiry simulations only when a hands-on practical activity cannot be done.
- We encourage children to ask and answer their own questions as far as practicable.
- Children complete at least two full enquiries each term, taking increasing responsibility for their planning, carrying them out and recording/interpreting the results.
- We sometimes use cross-curricular links to teach science with, for example, technology units.

5. Equal opportunities in science

Science is taught within the guidelines of the school's equal-opportunities policy.

- We ensure that all our children have the opportunity to gain science knowledge and understanding regardless of gender, race, class, physical or intellectual ability.
- Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias.
- We aim to teach science in a broad global and historical context, using the widest possible perspective and including the contributions of people of many different backgrounds.
- Where appropriate we draw examples from other cultures, recognising that simple technology may be superior to complex solutions.
- We value science as a vehicle for the development of language skills, and we encourage our children to talk constructively about their science experiences.
- In our teaching, science is closely linked with literacy and mathematics.
- We recognise the particular importance of first-hand experience for motivating children with learning difficulties.
- We exploit science's special contribution to children's developing creativity; we develop this by asking and encouraging challenging questions and encouraging original thinking.

6. Assessment and recording in science

We use assessment to inform and develop our teaching.

- Topics begin with an assessment of what children already know. Teachers begin topics with a KWL grid, (*what do we already know, what do we want to know and what have we learnt*) which allows children to reflect on the learning taken place at the end of a unit.
- We assess for learning (AfL). Children are involved in the process of self-improvement, recognising their achievements and acknowledging where they could improve. Activities during, and at the end of, each topic record achievement and celebrate success.
- We mark work positively, making it clear verbally, or on paper, where the work is good, and how it could be further improved. Children's work is compared with age appropriate exemplification. We moderate children's work termly to ensure consistency.
- We are developing a tracking system to follow children's progress. The school science coordinator monitors progress through the school by sampling children's work at regular intervals. Children

who are not succeeding, or children who demonstrate high ability in science, are identified and supported.

- Teacher's assessment is based on our Federation pupil progress documents and that is moderated by the science subject leader through lesson observations, book scrutinies, team meetings and an open dialogue with all members of staff.
- The Y2 & Y6 staff assess children's attainment and progress at the end of each key stage. This is based on assessment records and work samples from across the key stage and is supported by the science coordinator and previous class teachers if needed.
- Reports to parents are written once a year, describing each child's attitude to science, his/her progress in scientific enquiry and understanding of the content of science.

Review

This science policy will be reviewed by the science curriculum leader and the senior management team.

Date for next review of this document October 2021