



Science Policy

| | |
|--|---------------------------|
| Date Issued: | January 2023 |
| Prepared by: | E. Robson/S. Hawes |
| Review date: | January 2025 |
| Date Adopted by Governing Body: | February 2023 |

CONTENTS

Policy Statement

Intent

Roles and Responsibilities

Implementation

Early Years Foundation Stage

Key Stage 1

Key Stage 2

Resources

Impact

Monitoring and Evaluation

Health and Safety

Equal Opportunities

Disability Equality Impact

Assessment

Policy Monitoring and Review

Policy Statement

Science teaching at Wolviston Primary School aims to give all children a strong understanding of the world around them through a broad and balanced Science curriculum. Here at Wolviston Primary School our motto is at the heart of everything we do. We are a 'Small School with Big Dreams.' Through our Science curriculum we aim to ensure that children are given the opportunity to explore, develop and broaden their ambitions whilst fostering a love and passion for Science. Our curriculum aims to provide children with an understanding of scientific processes and implications of Science, today and for the future.

At Wolviston Primary School we ensure that children are receiving quality first teaching and practical learning experiences which encourage children to think critically, explain and predict. Science at Wolviston Primary School focusses on developing student's curiosity, thinking and scientific practices to enable them to think scientifically in order to make sense of the world in which they live. We believe that sound scientific knowledge and conceptual understanding helps and supports pupils to work successfully across our creative curriculum.

Intent

We believe that the teaching of Science is important because it enables our children to think critically, investigate, explain and predict. The purpose of Science is to give our pupils the skills, concepts and knowledge necessary for them to develop curiosity and make sense of the world in which they live.

Roles and Responsibilities

The Head Teacher and the subject leader are responsible for monitoring the standards of teaching and learning in school. The subject leader is responsible for supporting colleagues and informing them about current developments and resources.

The subject leader will:

- Review and update the policy when appropriate
- Ensure staff are aware of the policy's content and that it matches classroom practice as far as possible
- Assist in the development and review of the progressive curriculum map – long term scheme of learning and the medium-term scheme plans
- Monitor and evaluate the implementation and impact of the Science curriculum
- Ensure appropriate resources are available and regularly update them within the limits of the school budget and according to needs
- Keep up to date with new developments in Science and attend relevant CPD, including half termly Trust Working Party meetings
- Disseminate information, as it is received from any external source, to staff and children
- Encourage other members of staff in their Science teaching and give support where appropriate
- Ensure that Science maintains a high profile within the school, through displays etc
- Use Seesaw to gather a whole school overview of the teaching and learning of Science

- Keep evidence of curriculum walk reports, examples of planning and examples of children's work.

Teachers;

- Are responsible for planning and delivering the Science curriculum in line with the school long-term and medium-term schemes of work
- Deliver high quality and interactive teaching which facilitates progress
- Share examples of children at work via our online learning platform
- Accurately assess pupil progress and attainment in line with school expectations

Implementation

Early Years Foundation Stage

Within the Early Years Foundation Stage, Science is taught through the theme 'Understanding the World'. In EYFS teachers adopt a discovery approach to learning and provide opportunities for children to develop scientific thinking. Children are encouraged to ask questions, talk about why things happen, explore similarities and differences and observe changes. Through outdoor and indoor learning, children are provided with a breadth of learning opportunities to develop their understanding of the world. This is supported by highly trained practitioners who further develop children's ideas and thoughts through enhancements in continuous provision and skilled questioning. Children learn about the world and their environment through songs, stories and practical experiences which promote high engagement and depth of understanding. Their learning is shared and recorded through pictures and videos on Seesaw.

Key Stage 1

Working Scientifically

Pupils are taught to use the following practical scientific methods, processes and skills:

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions

Lower Key Stage 2

Working Scientifically

Pupils are taught to use the following practical scientific methods, processes and skills:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.

Upper Key Stage 2

Working Scientifically

Pupils are taught to use the following practical scientific methods, processes and skills:

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments

Resources

We have a range of Science equipment and resources that are accessible for all and can be easily moved around school. These include thermometers, measuring cylinders, circuit equipment, magnets, torches and books.

Impact

Our Science Curriculum is high quality, well thought out and planned to demonstrate progression.

We measure the impact of our curriculum through the following methods:

- Children reflect on their learning before, during and after a unit of work.
- Teachers plan opportunities for pupils to show that they have met the end points.
- Pupil discussions about their learning.

Monitoring and Evaluation

To monitor and evaluate the teaching and learning of Science the subject lead will:

- Provide support to teachers by explaining the progressive curriculum map, discuss the key

- concepts in Science, co-planning, team teaching, observing and giving feedback
- Monitor the delivery of medium-term planning against the curriculum map.
 - Engage in monitoring strategies such as work sampling, pupil voice review and lesson observation.
 - Review and advise the SLT on Science resource provision.
 - Work co-operatively with the SENDCo to provide support for children with SEND.
 - Discuss regularly with the Head Teacher the progress with implementing this policy in the school.

Assessment

Assessment forms an integral part of the teaching and learning of Science. Teachers assess children's progress in several ways, through feedback, by observing their working, listening to their responses and by making informed professional judgements in relation to the expectations set out in our curriculum maps.

Teachers record and track progress by making formative assessment throughout the year. At the end of the year assessment information is collated and a summative judgement, measured against specific End Points half termly. We track pupil progress using an internal data system.

Health and Safety

Children are taught how to use equipment and resources in accordance with the health and safety guidelines.

Equal Opportunities

All children, regardless of gender, race or learning needs will be given equal access to our Science curriculum. The Science curriculum will be differentiated according to the needs of the children. If a child needs specialist equipment to access the curriculum, the school will source the appropriate resource.

If a child has an EHC plan and is unable to access the curriculum at the same level as their peers, then provision will be made for the child to access the curriculum at their own level. If a child is identified as being more able, in this curriculum area, they will be challenged in their learning.

Disability Equality Impact Assessment

This policy has been written with reference to, and in consideration of, the school's Equality Policy. Assessment will include consideration of issues identified by the involvement of disabled children, staff and parents.

Policy Monitoring and Review

The subject lead reports to the Head Teacher upon the progress of their subject across school, the Head Teacher in turn, discusses this with school governors and the Trust.

Any questions or concerns regarding this policy should be made to the Head Teacher.

