Science Policy

February 2021

Bushmead Primary School

Contents

1. Aims

Through high-quality science teaching, we aim to help our pupils understand how major scientific ideas have played a vital role in society. Moreover, we aim to prepare our pupils for life in an increasingly scientific and technological world.

We aim to do this by:

- Delivering high quality, interesting and engaging science lessons;
- Using scientific contexts to develop and consolidate cross curricular skills in literacy, Maths and ICT;
- Teaching science in a global and historical context; including the contributions significant scientists from a range of cultures;
- Developing and extending pupils' scientific knowledge and understanding;
- Developing pupils' ability to work scientifically and involve pupils in planning, carrying out and evaluating investigations;
- Developing pupils' scientific vocabulary and ability to articulate scientific concepts clearly and precisely;
- Ensuring that all pupils are appropriately challenged to make good progress in science.

2. Legislation and guidance

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.

3. Definitions

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.

4. Roles and responsibilities

4.1 The head teacher

The head teacher will:

- Work with staff, parents and governors to determine the strategic development of the xxx policy and provision in the school.

- Have overall responsibility for the provision and progress of learners with SEND and/or a disability.

4.2 The Governor/s

They will:

- Work with the head teacher to determine the strategic development of the xxx policy and provision in the school.

The Governing Body will review this policy in line with the Policy review schedule at the FGB / FPP / C&S committee meetings

4.3 Class teachers and teaching assistants

They will be responsible for delivering high quality teaching with the aim of helping students develop a broad base of skills through practical, investigational and theoretical work across all EYFS, Key Stage 1 and Key Stage 2.

5. Teaching and Learning

Teachers plan and deliver high-quality and engaging science lessons incorporating a range of teaching and learning styles. At Bushmead teachers will provide opportunities for pupils to:

- Learn about science, where possible, through first-hand practical experiences;
- Develop their research skills through the appropriate use of secondary sources;
- Work collaboratively in pairs, groups and/or individually;
- Plan and carry out investigations with an increasing systematic approach as they progress through the school;
- Develop their questioning, predicting, observing, measuring and interpreting skills;
- Record their work in a variety of ways e.g. writing, diagrams, graphs, tables;
- Read and spell scientific vocabulary appropriate for their age.
- Be motivated and inspired by engaging and interactive science displays which include key vocabulary and relevant questions.
- Learn about science using the outdoor learning environment.

6. Curriculum Planning

- Science in the Early Years Foundation Stage is planned using the Early Years Curriculum 'Understanding of the World'.
- Key Stage 1 and 2 teachers plan science lessons using the National Curriculum (2014).
- All science lessons have focussed learning objectives, clear differentiation and success criteria to ensure that pupils make at least good progress.
- **'**Working scientifically' is embedded throughout the areas of learning in key stage 1 and 2; this focuses on the key aspects of scientific enquiry which enable pupils to investigate and answer scientific questions.
- Areas of learning within key stage 1 and 2 ensure that statutory requirements are being covered through the specific disciplines of biology, chemistry and physics (teachers may also refer to the non-statutory guidance which provide additional support).
- Please refer to the long term plan for details of the specific areas of learning covered in each year group over the year.

6.1 Promoting Science

- School visits for Science are organised where possible in line with the current unit of work, to enhance and extend learning.
- Local resources, such as scientists from industry are used to support work where possible.
- The school will participate in National Science Week.
- Science displays in classrooms and around school will celebrate children's work and evidence progression.

7. Special Needs Pupils.

We teach Science to all pupils, whatever their ability. We provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs.

Where pupils are to participate in activities outside the classroom, we carry out a full risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

8. Assessment and Recording

- Assessment is carried out in line with the school policy, using both summative and formative procedures.
- Formative assessments are made through observations in lessons.
- Summative assessment takes place at the end of each unit of work and each class teacher completes an end of unit assessment grid. Teachers make a judgement as to whether children are working below, working within or working above expectation for the objective.
- Assessments are used to inform planning and teaching and learning.
- Written or verbal feedback is given where appropriate to the child in line with the school marking policy, to help guide his/her progress.
- Older children are encouraged to make judgements about how they can improve their own work.
- In EYFS teachers assess science against the Development Matters statements in the 'Understanding of the World' area of the Early Years curriculum. The statements go from birth through to the Early Learning Goals at the end of Reception.

9. Health and safety

- 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.

10. Monitoring

- Lesson observation, planning and work book scrutiny as well as pupil voice questionnaires will be carried out regularly by the science subject leader and feedback is given to teachers at an appropriate time.

11. Resources

- Science resources are stored in the large cupboard outside Sycamore Class.
- An inventory of resources will be produced and kept on the server and is updated when new resources are ordered.
- The subject leader must be informed of any changes regarding science resources i.e. missing or broken resources and/or when new or replacement resources are required.

12. Inclusion

Teachers ensure that they adopt an inclusive approach to their science planning and teaching; ensuring that pupils of all abilities and backgrounds have an equal opportunity to make good progress and enjoy science.

13. Reporting to Parents

Pupils' progress will be reported to parents through parent consultations and attainment in science will be included in the end of year report.

14. Monitoring arrangements

This policy and information report will be reviewed by **every 3 years**. It will also be updated if any changes to the information are made during the year.

It will be approved by the governing board.

Version:	2	
Written by:	Nicki Haagman-Yates	**Date:** 28.2.21
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Next review due by:	Spring 1 2024	