



INSPIRE **ENJOY** **ACHIEVE**
**NEWHAM BRIDGE
PRIMARY SCHOOL**

Science Policy

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Introduction

“Children enjoy science, are inspired by science and achieve through science”

At Newham Bridge it is our vision that science will be enjoyed through a range of hands-on, challenging and meaningful activities. The children will be inspired to challenge ideas through independent and collaborative work and use their curiosity to explore. Through engaging purposeful experiences that go beyond the classroom, children will be supported to achieve in science.

This policy outlines the teaching and learning of science at Newham Bridge Primary School. The implementation of the policy is the responsibility of all teaching staff and will be monitored by the science Co-ordinators and Head Teacher.

Aims and Purposes

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.

Strategies

These aims and purpose are taught through:

Scientific knowledge and conceptual understanding

Children should:

- Be curious about things they observe, experience and explore the world about them with all of their senses,
- Use this experience to develop their understanding of key scientific ideas and make links between different phenomena and experiences,
- Begin to think about models to represent things they cannot directly experience,
- Try to make sense of phenomena, seeking explanations and thinking critically about claims and ideas.

The nature, processes and methods of skills

Children should:

- Acquire answers to questions through collecting, analysing and presenting data,
- Acquire and refine the practical skills needed to investigate questions safely,
- Develop skills of predicting, asking questions, making inferences, concluding and evaluating based on evidence and understanding and use these skills in investigative work.

Spoken language

Children should:

- Think creatively about science and enjoy trying to make sense of phenomena, Newham Bridge Primary School Science Policy
- Develop language skills through talking about their work and presenting their own ideas using sustained and systematic writing of different kinds,
- Use scientific and mathematical language including technical vocabulary and conventions and draw diagrams and charts to communicate scientific ideas,
- Read non-fiction and extract information from sources such as reference books or the Internet.

Values and Attitudes

Children should:

- Work with others, listening to their ideas and treating these with respect,
- Develop respect for evidence and evaluate critically ideas, which may not fit evidence available,
- Develop a respect for the environment and living things and for their own health and safety,
- Develop an appreciation of the contribution science makes, has made, to society and to our surroundings and personal health.

Organisation

The programmes of study for science are set out year-by-year for Key Stages 1 and 2 in the National Curriculum. Class teachers are responsible for ensuring that all of the relevant statutory content is covered within the school year. The National Curriculum gives a full breakdown of the statutory content to be taught within each unit. Non-statutory guidance is also provided, which staff members are encouraged to use, alongside the assessment materials devised by Newham Bridge Primary School.

Assessment

In science formative assessment takes place by:

- Talking to the pupils and asking questions
- Discussing the work with the pupil
- Looking at the work and marking against the learning objective
- Observing the pupils carrying out practical tasks
- Pupil's self evaluation of their work

Newham Bridge has designed its own bespoke assessment system. Assessment grids in science books are regularly updated by staff to show children's progression, identifying if they are emerging, developing or secure in each area of the science curriculum.

Record Keeping

Children's recording will take many forms according to the nature of the activity:

- Verbal
- Pictorial
- Diagrammatic
- Graphical
- Classroom Organisation
- Written
- Symbolic
- I.C.T.
- Photographic

Reporting to parents takes place through parents' evenings and annually through a written report.

Progression

Teachers use the National Curriculum guidelines to inform planning alongside a wide range of resources, including the school environment, to enhance and enrich the children's learning. Where mixed year groups are in operation a two year rolling programme will be used, otherwise single year planning will be used to deliver the Science curriculum.

Resources

Children are encouraged to value and take care of all equipment. Science resources are the responsibility of the Science Co-ordinators who audited resources, recording items which are disposed of.

Leadership and Management Roles

The Science co-ordinators are responsible for ensuring that the aims of the science policy are met. In addition to this, the science co-ordinators should:

Be enthusiastic about science and demonstrate good practice,

Encourage and support staff in the implementation of the curriculum and school approaches to Science teaching,

Co-ordinate assessment procedures and record keeping to ensure progression and development throughout the school,

Monitor the teaching and learning of Science throughout the school,

Bid for funding to enrich science teaching and learning at Newham Bridge Primary School,

Organise and review all science-based resources, ensuring they are readily available and maintained,

Support staff by encouraging the sharing of ideas and organising CPD,

Endeavour to involve parents/carers in their child's learning in and through science.

Special Educational Needs

All children are encouraged and supported to develop their full potential in science. In school we aim to meet the needs of all our children by planning and providing a variety of approaches and tasks appropriate to ability levels. The SENCo will liaise with the class teachers to ensure that the individual needs of pupils with special needs are met. Please also refer to the SEND Policy.

Equal Opportunities

All children have equal access to the full Science programme of study that satisfies the National Curriculum 2014 requirements. It is important for all children to experience a range of scientific activities in ways that are appropriate to their needs and abilities. Please also see the school's Equal Opportunities policy.

Safe practise

The school is committed to ensuring that all pupils are safe within the school environment. Children are encouraged to consider their own safety and the safety of others at all times. Teachers will provide a safe and secure environment for children to learn. Risk assessments will be completed by staff prior to activities or investigations. Guidance will be sought from the local authority, ASE and Be Safe! Science guidance book. Please also refer to the school's policy for Health and Safety. School is also supported by CLEAPSS.