

Bushfield Road Infant School

**SCIENCE
POLICY**

Bushfield Road Infant School Mission Statement

At Bushfield Infants, we provide a positive, happy and safe learning environment where all children feel valued and secure. We are committed to providing a rich and exciting curriculum, which encourages all children to meet challenges with enthusiasm and inspires them to succeed. At the heart of our school is a strong commitment to raising children's self-esteem and self-confidence, which enables them to become confident lifelong learners.

Communication and Interaction

We spend a huge part of our lives talking, listening and responding to people around us. We should never just expect communication to happen; we should take personal responsibility for the quality of our conversations. Almost everything we do, in and out of school, depends on talking and listening. Speech, language and communication skills are crucial for the development of a child's learning and for their social and emotional wellbeing.

For that reason, across all areas of our creative curriculum, we provide opportunities to talk, to listen and to respond to what we see and hear. (Please refer to The Communication, Interaction and Literacy policy for further information)

Aims

Science stimulates and excites pupils' curiosity about the world around them.

We Aim

- To encourage children to develop a sense of enquiry and extend their knowledge and understanding of the world around them.
- To provide the opportunity for them to develop a knowledge about living things, materials and physical processes.
- To encourage children to investigate adding to their knowledge about the world.
- To work together to collect evidence, to answer questions, evaluate their findings and conduct fair tests.
- To share their ideas and communicate them using scientific language, drawings, charts and tables.

Objectives

By the end of Key Stage One all pupils should be able to:

- Have had the experience of investigating and recording in a variety of situations and methods.
- Have had the experience of planning experimental work and predicting the outcome with adult intervention.
- Be able to recognise an unfair test or comparison.
- Explore and develop their knowledge about living things, materials and energy.
- Work confidently and independently as an individual or as part of a group.
- Approach scientific activities in a positive and exploratory manner.
- Work with growing awareness of their personal safety managing their own safe and healthy working environment.

Teaching and Learning Organisation

(a) Curriculum equal opportunities.

All pupils are entitled to a broad and balanced science curriculum in accordance with the schools policy for equal opportunities.

The science curriculum will provide equal opportunities through:

- Activities that are well matched to the different need of the pupils (differentiation).
- Effective planning which challenges and inspires using clear objectives and high expectations and clearly defines the role of the adults with an emphasis on encouraging pupil independence and guidance on safety.
- Equal access and relevant provision for all pupils, reflecting IEP's, IBP's and gifted and talented, independent and group activities.
- Well managed learning opportunities with high expectations for behaviour.
- Open access to all support materials (ICT, Library).
- Hands on experiences.

(b) The core concepts, skills and attitudes.

Children will be encouraged to:

- Develop good attitudes towards primary science.
- Plan, hypothesise, predict.
- Design and carry out experiments.
- Draw conclusions from their findings.
- Communicate their findings to others.
- Develop a respect for living and non-living things.
- Work co-operatively with others.
- Build upon their own natural curiosity of the world around them.
- Tackle problems confidently.
- Enjoy themselves.

(c) Cross curricular themes.

Science is a core subject and will be included in the creative curriculum of the school linked to each half terms topic. Advantage will be taken of all links to other subjects in particular, CLL, ICT, DT, numeracy.

Opportunities to draw on children's own experiences will be maximised and supported through the use of the enterprise skills.

The understanding the world element of the Early Years Foundation Stage Document gives opportunities to investigate using a range of techniques and senses in preparation for further hands on experiences throughout Key Stage One.

Key Stage One.

The schools agreed format for long and medium term planning is followed by all teachers to ensure continuity and progression.

Science planning is integrated into a cross curricular approach. Half termly topics run on a 2 yearly cycle, each areas of science is covered every term. Teachers collaborate to produce teaching frameworks and medium term planning, for each topic which ensures an even coverage of science throughout the year.

Short term planning is undertaken by all staff using the agreed format.

The essential elements of all short term planning are: objectives, outcomes, differentiation, resources, learning tasks, key skills and enterprise skills. The learning objectives relate to the National Curriculum. The success criteria is taken from the level descriptors.

Teachers assess against these objectives and their marking refers to the success criteria for each lesson.

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Foundation Stage.

Within the Early Years Foundation Stage documentation, scientific enquiry makes up a significant section of the Understand the World element. It is an integral part of the early years curriculum and is taught as part of a topic based approach to learning. The objectives and success criteria are taken from the age appropriate learning objectives from the curriculum.

Children also have access to the investigation area, as part of continuous provision in both the Nursery and Reception classes, alongside adult led activities.

To ensure that the science curriculum is equally accessible to and demanding of all pupils some of the following principles will apply for all or of part of the time:

- Identifying and minimising barriers to learning and participating.
- Maximising of resources to support leaning participation.
- Work will include feedback to the children verbally and or writing.

- Activities will be well matched to levels of attainment through specific tasks or opportunities for independent task management and planning.
- The language of instructions will be simplified for those children who experience reading/writing/comprehension difficulties and employ appropriate terminology for others.
- Sufficient repetition will be allowed to consolidate skills.

(d) Safety to include child protection.

All science activities must be safe for children and adults. Teachers should refer to:

- The schools health and safety policy.
- The schools risk assessment management policy.
- The school safeguarding policy.
- Any concerns regarding the safety of children and staff should be reported to the Head Teacher immediately.

(e) Assessment, recording and reporting procedures.

Assessment takes many forms in science. These are mainly: observation notes, teacher question and transcriptions, photographs and recorded outcomes.

In every lesson, learning outcomes are noted in the outcomes column of the short term planning. This informs future planning.

Children are also given the opportunity to assess their own work and sometimes the work of their peers.

APP grids are used regularly to track individual progress. Work is levelled termly in all areas of science. This is recorded on a central tracking grid, for each cohort throughout Key Stage One. The APP grids are passed on to new teachers at transition points.

In the Foundation Stage children's progress is monitored using the EYFS Development Matters documentation.

In addition to the above:

- Reception data to be submitted to the local authority termly.
- All FS2 and KS1 results to be inputted on O-Track and analysed termly.
- Standards used in science are moderated against the attainment targets which include samples for each level within each attainment target.
- Progress will be reported to parents at termly parents meeting and in the end of year report.

- Co-ordinator will moderate quality of learning through lesson observations as appropriate, examples of work and planning viewed during co-ordinator release time.
- Co-ordinator will offer support as required with regards to planning and own knowledge and to audit provision of resources kept in the central resource cupboard.