

Bushfield Road Infant School

Mathematics POLICY

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 life-long 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 well-being.

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 and Objectives

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics.

We provide a broad and balanced curriculum for all children. We encourage children to reflect on their learning, sharing targets, objectives, and talking about and discussing their learning.

The aims of mathematics are:

- to promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion;
- to promote confidence and competence with numbers and the number system;
- to develop the ability to solve problems through decision-making and reasoning in a range of contexts;
- to develop a practical understanding of the ways in which information is gathered and presented;
- to explore features of shape and space, and develop measuring skills in a range of contexts;
- To understand the importance of mathematics in everyday life; and its links with other areas of the curriculum.

Teaching and Learning Style

The school uses a variety of teaching and learning styles in mathematics lessons. Our principal aim is to develop children's knowledge, skills and understanding in mathematics. We do this through a daily lesson that has a high proportion of whole-class and group-direct teaching. During these lessons we use modelling and demonstration in order to engage children in asking and answering mathematical questions. We ensure that children have the opportunity to learn in a variety of ways using and developing their visual, auditory and kinaesthetic skills. They have the opportunity to use a wide range of resources such as number lines, number squares, digit cards and small apparatus to support their work. Children use ICT in mathematics lessons when it will enhance their learning. Wherever possible, we encourage the children to use and apply their learning in everyday situations in order to make it relevant to their experiences.

In all classes there are children of differing mathematical ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies - in some lessons through differentiated group work and in other lessons by organising the children to work in pairs on open-ended problems or games. Work is matched carefully to the needs of individual children offering a challenge so that they can reach their potential whether they are children with SEN or Gifted and Talented.

Mathematics Curriculum Planning

Mathematics is a core subject in the National Curriculum, and we use this for the basis of our planning in KS1. In Foundation Stage, we relate the mathematical aspects of the children's work to the objectives set out in the Early Years Outcomes Framework, which underpins the curriculum planning.

The Foundation Stage

We teach mathematics in our Nursery and Reception classes. We provide all the children with a wide range of opportunities to develop their understanding of number, measurements, pattern, shape and space through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

Children's mathematical development is carefully planned for through adult-led focus activities and opportunities to learn through first-hand experience. Throughout the Foundation Stage, children are also encouraged to use and develop mathematics through play in all areas of provision.

Contribution of mathematics to teaching in other curriculum areas

English

Mathematics contributes significantly to the teaching of English in our school by actively promoting the skills of reading, writing, speaking and listening. For example, we encourage children to read and interpret problems in order to identify the mathematics involved. The children explain and present their work to others during plenary sessions. Younger children enjoy stories and rhyme that rely on counting and sequencing.

Personal, social and health education (PSHE) and citizenship

Mathematics contributes to the teaching of personal, social and health education, and citizenship. The activities that children do within the classroom encourage them to work together and respect each other's views.

Information and communication technology (ICT)

Mathematics contributes to pupils' ICT experience through

- communicating information - graphs, charts, tables of data
- handling information - investigating, sorting and classifying information, retrieving information in different forms and interpreting information
- Mathematical software

Spiritual, moral, social and cultural development

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results.

Enterprise Skills

As part of our whole school focus on Enterprise, pupils are introduced to 6 characters that represent the relevant skills. Maths skills are an integral part to these projects, with financial capability playing a vital role.

Teaching mathematics to children with special educational needs

At our school mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our mathematics teaching 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.

Effective pupil tracking enables identification of pupils who may benefit from 'early intervention'. Additional maths support is provided regularly by a teacher for those children with specific needs. Activities are personalised according to their individual targets.

Teaching mathematics to Gifted and Talented children

We use a range of strategies to identify more able and very able children. Teaching is differentiated in a variety of ways, to cater for the needs of these children:

- a common activity that allows the children to respond at their own level;
- an enrichment activity that broadens a child's learning in a particular skill or knowledge area;
- an individual activity within a common theme that reflects a greater depth of understanding and higher level of attainment;

The Gifted and Talented Co-ordinator is released weekly to take groups of children to challenge and extend their mathematical thinking.

Assessment and Recording

Mathematics is assessed within the guidance of the whole school policy. Within the long term, medium term and short term planning, learning objectives are identified and activities planned to address the Programme of Study. These are informed by appropriate level descriptors.

The assessment of a pupil's progress is made against those learning objectives. Assessment is made by direct observation of a pupil's performance in written, oral and practical tasks.

The Youngs Maths Test is administered to Year 1 and 2 in November and Year 1 children in June. The children are assessed against National Curriculum Levels at the end of each term and the information is recorded on the class Tracking Sheet.

In Foundation Stage assessments are made against the EYFS Development Matters. These assessments are ongoing and tracked termly. At the end of FS2 children are assessed against the EYFS Profile.

Resources

There is a range of resources to support the teaching of mathematics across the school, including number lines, number squares and a wide range of appropriate small apparatus. Other mathematical resources are kept centrally. A range of software is available to support work with the computers.