

Mathematics Policy

This policy was written after due consideration of the School's Mission Statement and Core Values.

Introduction

Mathematics is integral to everyday life. We, therefore, endeavour to ensure children develop a healthy and enthusiastic attitude towards mathematics.

This policy outlines what we are aiming to achieve with regards to children's mathematical education. It also describes our agreed approach to the planning, delivery and assessment of the mathematics curriculum.

This policy provides information and guidance for staff, governors and other interested persons.

Aims and Objectives

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives.

The National Curriculum (2014) aims of mathematics are to:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately;
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language;
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Teaching and Learning Style

We use a variety of teaching styles in mathematics lessons. Our principle aim is to develop children's knowledge, skill and understanding in mathematics. We do this through daily mathematics using a range of direct teaching methods – small, large and whole group teaching. During these lessons we encourage children to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources such as number lines, 100 squares, digit cards and practical apparatus to support their work.

Children use ICT in mathematics lessons where it will enhance their learning, such as modelling their ideas and methods or using learning packages such as Times Tables Rockstars. Wherever possible, we encourage children to use and apply their learning in everyday situations.

In all classes there are children of differing mathematical abilities. Children are provided with suitable learning opportunities through quality first teaching; matching the challenge of the task to the ability of the child. This is achieved through a range of strategies, such as, differentiated independent or group work, independent challenges, paired work and open-ended problems or games. Teaching assistants provide additional support to some children.

Calculations policies, which outline the progression of the four rules of number across every year group, are followed by all staff. Children progress through mastery.

Curriculum Planning

Mathematics is a core subject in the National Curriculum (2014) and staff use this to ensure statutory requirements are met.

There are three phases to mathematics planning – Long Term (annually), Medium Term (termly) and Short Term (weekly).

Long and medium term planning outlines the units covered in each term and the National Curriculum coverage. Coverage is the responsibility of class teachers and is overseen by the Subject Leader.

The class teacher completes weekly plans for the teaching of mathematics, using a range of appropriate sources. Weekly plans specify learning objectives for each lesson and give details of how the lessons are to be taught. They include details of differentiated activities and allocations of support. Evaluations at the end of each lesson inform planning of future lessons. Periodically, the Subject Leader monitors planning.

Early Years Foundation Stage

Reception staff use the EYFS Framework, Development Matters document to plan for and assess mathematics in the EYFS. Direct teaching and continuous provision are used to develop children's mathematical skills. Practical, hands on activities and application to real life learning opportunities are used to provide children with the fundamental skills required to develop understanding of number, shape, space and measurement.

Supporting children with Special Educational Needs and/or Disabilities

We provide a broad and balanced education to all children. Children with SEND are provided with learning opportunities that are matched to their individual needs. Additional intervention packages are also used for any child who may need it.

Assessment and Recording

Children's mathematical understanding is monitored from entry to school to the end of Year 6 through on-going teacher assessment and statutory testing.

Ongoing assessment, linked to specific learning objectives, is carried out during and after every mathematics lesson to ensure suitable differentiation and challenge. Staff complete Steps to Success documents for every child, which provide next steps for children.

Half-termly teacher assessment data measures progress against the statutory requirements and aids planning. Moderation meetings take place both in school and with other schools to ensure consistency of judgements across the school. Pupil's progress and attainment are recorded half termly with shows progress made. These are used to inform any intervention needs for underperforming children.

End of year assessments assess progress against the national age-related expectations. Transition meetings with staff in each year group at the end of the summer term ensure all staff have a secure understanding of each child's progress in maths and can plan appropriately for their individual needs.

Resources

There are a range of resource to support the teaching of mathematics across the school. All classrooms have a selection of appropriate apparatus for everyday use and a variety of teacher resource books. There is also a central store for shared resources.

Monitoring and Review

Monitoring of children's work and the quality of teaching in mathematics is the responsibility of the mathematics subject leader. Regular book scrutinies, monitoring of planning and lesson observations ensure evidence of the quality of mathematics teaching is triangulated. Other monitoring activities include, staff questionnaires, pupil conferencing and resource audits.

Reviews are presented with the Headteacher and Governors.