



# FAIRLANDS PRIMARY SCHOOL

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## POLICY STATEMENT

## MATHEMATICS

<b>APPROVED</b>	<b>January 2020</b>
<b>TO BE REVIEWED BY</b>	<b>January 2023</b>

**FAIRLANDS PRIMARY SCHOOL**  
**MATHEMATICS POLICY**

**INTRODUCTION**

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

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.

**AIMS**

The aims of mathematics are:

- to promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion
- to promote fluency, confidence and competence with numbers and the number system
- to develop the ability to solve increasingly complex problems through decision-making and mathematical reasoning in a range of contexts; by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- 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.

**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. During these daily lessons, we encourage children to ask as well as answer mathematical questions with the support of speaking frames as appropriate. They have access to a wide range of concrete resources, which they are encouraged to utilise independently to support their work. ICT is interwoven in mathematics lessons where it will enhance learning. Wherever possible, the children use and apply their learning in meaningful everyday contexts.

Mental mathematics is supported and developed by an additional daily fluency (CLIC) session that lasts 20 minutes. Within this session children are taught a range of mental strategies and practice number skills to develop fluency in mental calculations. These sessions use an array of different teaching methods that cater for all learning styles.

In all classes, there are children of differing mathematical ability. We recognise this fact and provide suitable learning opportunities for all children. Children are encouraged to challenge themselves by choosing an appropriate task. Throughout their mathematical journey, children will have the opportunities to work independently, with a partner, in a small group or guided by adult support.

'Working Walls' for Mathematics are located within each class. Vocabulary, supporting materials, aide memoirs and examples of work are displayed to reinforce the current learning.

**MATHEMATICS CURRICULUM PLANNING**

Mathematics is a core subject in the National Curriculum, and we use the Herts For Learning (HFL) Maths Essentials planning, which follows the programmes of study laid out in the 2014 National Curriculum.

We have adopted the HfL 'Progression in Mental Mathematics' and 'Written Calculation Progression' policies.

Planning is organised in three phases (long-term, medium-term and short-term). The key objectives from the National Curriculum are organised and taught in a sequence, which build upon the children's learning and knowledge in a way that makes positive links and connections. The HFL Essentials sequences are written as a spiral curriculum in which learning is built upon systematically, sequence by sequence and year on year. It is aspirational and ensures progression and coverage through the primary phase.

Links to other subject areas are made where appropriate, so that children can practise using the mathematics they have learnt in engaging, meaningful contexts.

## **MATHEMATICAL DEVELOPMENT IN THE FOUNDATION STAGE**

The mathematics section of the 2014 EYFS statutory framework sets out the goals for children in number, shape and measure. We use the Early Years 'Ages and Stages' document within Development Matters as the basis for our planning.

Mathematical understanding is developed through stories, songs, games and imaginative play.

Through practical activities, daily routines and inspiring learning environments (indoor and outdoor), children are enabled to develop their understanding of problem solving, reasoning and counting. Sorting and matching activities allow children to explore shape, space and measures in a variety of engaging contexts.

Mathematical vocabulary is given relevance by being modelled in "real life" contexts.

Children are regularly and routinely assessed to enable the next steps in their learning to be identified.

## **TEACHING MATHEMATICS TO CHILDREN WITH SEN**

It is the school's aim to provide a broad and balanced education to all children and we teach mathematics to all children, whatever their ability. We provide learning opportunities that are tailored to the needs of children with learning difficulties. Learning in mathematics takes into account the targets set for individual children in their Personalised Learning Plans (PLPs).

Where appropriate, children will be supported by appropriate and tailored interventions that will allow them to make progress towards their individual targets.

## **ASSESSMENT AND RECORDING**

Children are assessed against the learning objectives for each Maths lesson. Destination questions from the HFL Essential maths allow children to apply their understanding of the objectives through a variety of different contexts. Children are then directed to their next step through the use of 'Give It A Go' challenge questions.

Each term the children's progress against the HFL Steps, which provide levels of attainment, is measured. This informs teachers' planning, ensuring children continue to make salient progress. It also allows teachers to identify children who may need additional support in their learning. Alongside these termly assessments, children undertake a formative diagnostic assessment which pinpoints individuals with possible gaps or weaknesses in their learning. Teachers use this information to inform planning and deployment of support to ensure all children continue to make progress. Each term parents are informed about their child's progress and attainment.

At the end of each school year, summative assessments for each child are undertaken. This information is used to assess progress against school and national targets and is passed on to the next teacher at the end of the year, so that s/he can plan for the new school year.

## **CPL**

The need for further training is identified through Performance Management Interviews and by the Phase/subject leader through lesson observations or other means. Training needs are also closely linked to the School Improvement Plan and are identified in the subject action plan.

## **RESOURCES**

There are a wide variety of resources to support the teaching of mathematics across the school. All classrooms have a broad range of appropriate small apparatus. Children are actively encouraged to utilise resources

independently to aid their learning. Some equipment is stored centrally and is shared and accessed when needed. All classrooms have their own interactive whiteboard to enhance learning and support cross-curricular links. Each phase has access to a wide range of ICT equipment that can be used to support or enhance the learning of mathematics; a range of mathematical software is available on computers and I-pads. Children have access to a number of online curriculum resources that allow them to access mathematical activities at home.

## **MONITORING**

Monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the mathematics subject leaders in conjunction with phase leaders. The work of the mathematics subject leaders also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. Management time is allocated to the mathematics subject leader so that s/he can review samples of children's work and undertake lesson observations of mathematics teaching across the school.

## **REVIEW**

The local governing body will review this policy in line with its annual cycle of review.