

Avenue Pre-Preparatory School and Nursery

KS1 Curriculum Policy - Maths

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Introduction

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. In addition it enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. It is one way of teaching flexibility, initiative, accuracy, systematic logical thinking and is a source of interest and fun.

Aims

- To promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion.
- To develop logical thinking and reasoning skills through a natural curiosity and investigative approach.
- To promote confidence and competence so that children are 'proud to shine' about their achievements.
- To develop a thorough knowledge and understanding of 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 mathematical skills 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. We do this through a daily lesson that has a high proportion of whole-class and group-direct 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, number squares, digit cards and small apparatus to support their work. Children and teachers use ICT in mathematics lessons where it will enhance their learning, and to assist with modelling ideas and methods. Wherever possible, we encourage the children to use and apply their learning in everyday situations.

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.

Throughout lessons a range of strategies are used to ensure appropriate levelled learning. Children are asked to undertake independent work but other strategies are also utilized. In some lessons group work is undertaken, and in other lessons, children are organised to work in pairs on open-ended problems or games. We use classroom assistants to support some children and to ensure that work is matched to the needs of individuals.

Children are set a weekly homework task in order to strengthen their learning in mathematics. This task directly links with the current unit of learning and is differentiated for each maths group.

Mathematics curriculum planning

Mathematics is a core subject in the National Curriculum and we use the National Numeracy Strategy through Hamilton Trust and White Rose Maths Scheme as the basis for implementing the statutory requirements of the programmes of study for mathematics.

We carry out the curriculum planning in mathematics in three phases (long-term, medium-term and short-term). The Hamilton Trust framework gives a detailed outline of what we teach in the long term.

Our medium-term mathematics plans, which are adopted from the Framework and give details of the main teaching objectives for each term, define what we teach. They ensure an appropriate balance and distribution of work across each term. These plans are kept by the class teachers.

It is the class teacher who completes the weekly plans for the teaching of mathematics. These weekly plans list the specific learning objectives for each lesson and give details of how the lessons are to be taught. The class teacher keeps these individual plans.

Differentiation

We will encourage and support all pupils to reach their full potential through the provision of varied opportunities. To this end we will ensure that all teaching provides equal opportunities in differentiated ways to enable individual children to make good progress. Teachers will monitor and record progress from starting points so that individual children can have clear aims in their work so that they can see what progress they are making. We recognise that our curriculum planning must allow pupils to gain a progressively deeper understanding and competency as they move through our school. We will pay close attention to sequencing work so that children can move forward on the basis of their understanding and learning at each and every stage. Where additional support is required to meet individual needs, this will be provided.

Evaluation and Assessment

The assessment of the children's work is an integral part of teaching. It allows teachers to identify what has been learnt and to monitor pupils' progress. Assessment should also diagnose and identify ways of overcoming particular learning difficulties. Examples of work will be assessed regularly using the KS1 level descriptors and termly records kept in the Pupil's Profile and Assessment Folder.

Equal Opportunities

The teaching of Mathematics will be in accordance with the present policy for Equal Opportunities. We aim to provide equal access to mathematics for those children with Special Educational Needs and those pupils who are very able and require extension activities, through small group work and through the use of Classroom Assistants help where available.