



Mathematics Policy

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Mathematics Policy

Introduction

This policy outlines the purpose, nature and management of Mathematics taught at Elm Academy. The implementation of this policy is the responsibility of all teaching staff.

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to communicate, 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.

At Elm Academy we aim to:

- promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion;
- develop mathematical skills and knowledge and quick recall of basic facts in line with the National Curriculum
- promote confidence and competence with numbers and the number system;
- develop the ability to solve problems through decision-making and reasoning
- develop a practical understanding of the ways in which information is gathered and presented;
- explore features of shape and space, and develop measuring skills in a range of contexts;
- develop an appreciation of the creative aspects of maths and awareness of its aesthetic appeal;
- understand the importance of mathematics in everyday life.

Teaching and learning style

Each mathematics lesson consists of

- mental and oral work
- introduction to the main part of the lesson
- group/individual activities
- plenary

A balance of practical, investigative, oral and written activities is used throughout the school. Children are given opportunities for investigative work and problem solving, at all ages and levels, to develop their ability to apply their mathematical skills to real life situations. A cross-curricular approach is used to provide first hand experience wherever appropriate. The children develop their mathematical language through opportunities to question and explain their activities and in discussion with the teacher, support staff and each other.

Mathematics curriculum planning

Mathematics is a core subject in the National Curriculum, and we use the National Curriculum as the basis for implementing the statutory requirements of the programme of study for mathematics.

Long term and medium term planning: The National Curriculum provides the long and medium term planning for mathematics taught in the school.

Short term: The school has a common format for short term planning which is used throughout the school from Y1 to Y6. It outlines the learning objectives (taken from medium term planning), activities and assessment opportunities for the work covered.

The senior leadership team and the mathematics co-ordinator are responsible for monitoring the mathematics planning within our school.

The Foundation Stage

In the Foundation Stage, we relate the mathematical aspects of the children's work to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children aged three to five. We give all the children many opportunities to develop their understanding of number, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practice and talk confidently about mathematics.

Children's mathematical development is also carefully planned-for, through adult-led focus activities and through mathematical learning in all areas of provision. Planning is in place to support children's mathematical development.

Throughout the Foundation Stage, children are encouraged to use and develop mathematics through play in all areas of provision. Concepts of shape, space, direction, size, length, capacity and mass are developed through sand, water and tactile play, outdoor provision, small world play, storytelling and nursery rhymes for example.

Assessment and recording

At Elm Academy we recognise that Assessment for learning lies at the heart of promoting learning and in raising standards of attainment. We further recognise that effective AfL depends on using the information gained.

The assessment procedures within our school encompass:

Short term

Children's classwork is assessed frequently through marking the children's work and giving written and/or verbal feedback; analysing children's errors; questioning; discussion; use of plenaries and adjusting planning and teaching within areas of study in response to pupils' performance.

Medium Term

Every six weeks, pupils' progress is assessed using the Assessing Pupils Progress grids and the National Curriculum levels are reported to parents. Moderation of children's work takes place regularly.

Long Term

The following tests are carried out annually: SATs at the end of Year 2 and Year 6 and optional SATs at the end of Year 3, Year 4 and Year 5. Question level analysis of statutory and non-statutory SATs is carried out to identify weaknesses and inform planning.

Target setting

End of year targets in Mathematics for Years 3 – 5 are set in the first half of the Autumn term; end of Key Stage targets for Years 2 and 6 are set in November while end of year targets for Year 1 are set in January.

Equal Opportunities

At our school we believe that all children regardless of their gender, age, ethnicity, academic or physical ability are given equal opportunities to develop their attainment in mathematics to reach their full potential, confidently and successfully. We ensure that the specific needs of all pupils are

met by providing tasks that are appropriate to the pupil's ability and that their learning is supported by good quality, relevant first hand experiences to consolidate and extend their mathematical learning. Effective pupil tracking enables identification of pupils who may benefit from early 'intervention' at an appropriate level, i.e. Wave 2 or Wave 3. Work in mathematics takes into account the targets set for individual children in their Individual Education Plans (IEPs). We also recognise, and aim to make provision for, pupils who have a particular ability in mathematics. Where appropriate, children are set for mathematics. More able children at mathematics will be taught with their own class and stretched through differentiated group work and extra challenges. Provision can be made for more able children to work with an older age group. Where appropriate, we support children with English as an additional language in a variety of ways: repeating instructions, speaking clearly, emphasising key words, using picture cues, playing mathematical games, encouraging children to join in counting, chanting, finger games and rhymes.

Teaching Assistants

Teaching assistants are viewed as an important 'asset' to the school and, as such, are appropriately involved in the planning and delivery of the mathematics curriculum. We use teaching assistants to provide appropriate support to individuals or to groups of pupils while their knowledge, skills and understanding are updated through involvement in school-based Inset.

Marking

This is to be carried out in line with the Marking policy. We recognise the importance of responding to children's work, whether orally or in writing. We seek to encourage children by highlighting positive achievements. Children are given opportunities, and actively encouraged, to explain their work to others and to display their work when it is deemed appropriate. They are encouraged to value and respect the work of others.

Presentation policy

Presentation in Mathematics is to be carried out in line with the Presentation policy.

Display

We recognise the importance of a stimulating learning environment. Each classroom has mathematical displays which include mathematical vocabulary, visual aids and interactive activities where appropriate.

Parents and Homework

Parents are involved in their children's learning of mathematics through

- the setting of regular mathematics homework
- talking to teaching staff informally, and formally at termly Parent Consultations
- annual reports with targets for the Autumn term of the following academic year

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