



Mathematics Policy

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Mathematics Policy

'Mathematics equips pupils with a uniquely powerful set of tools to understand and change the world.'

(National Curriculum for England Mathematics 1999)

Definition

Mathematics is:

- an important tool which can be used to enable things to be done which might otherwise be impossible and should equip the children for real life situations;
- one way of teaching initiative, accuracy, systematic logical thinking and is a source of interest and fun;
- important in the communication and analysis of information and ideas;
- a tool to give the power to describe and explain, but also predict – to suggest possible answers to practical problems.

Aims

- to encourage children to use mathematics in everyday situations, to understand its relevance to life and use problem solving skills;
- to develop children's understanding of mathematical concepts, skills, facts, relationships and strategies;
- to develop an inquiring and inquisitive mind;
- to encourage enjoyment, creativity and confidence in mathematics;
- to ensure all children receive their entitlement to the full range of mathematical experiences as set out in the National Curriculum in the areas of numbers and the number system, calculations, solving problems, handling data, measures, shape and space;
- to support children to attain the levels of achievement appropriate to their ability and experience and to challenge children to fulfil their mathematical potential;
- to encourage children to work co-operatively and independently;
- to familiarise children with the language of mathematics and the ability to use it to communicate with others.

Planning

Our planning is based upon the Programmes of Study and Statements of Attainment. Each year group produces termly plans which are given to the Mathematics Leader for monitoring purposes. Our weekly plans give details of appropriate activities and outcomes, including challenge for the more able and support for the less able. They also include opportunities for the assessment of key objectives. KS2 staff may use NNS Unit Plans to support their planning, but not exclusively.

The use and application of Mathematics to investigate and solve problems is integrated with work on number, algebra, shape, space and handling data to help the children think mathematically. Cross-curricular links are made when appropriate.

Teaching Styles and Strategies

A range of styles of teaching is necessary for the teaching of Mathematics. Approaches need to be related to the topic itself and to the abilities and experience of both teachers and pupils. Our teaching at all levels includes opportunities for:

- introducing a new topic with a real life problem;
- use of models and images;

- whole class teaching including mental / oral starters;
- speaking and listening;
- appropriate practical work;
- consolidation and practice of skills and routines;
- problem solving;
- the committing to memory and recall of a range of mathematical facts;
- investigation work;
- class work, group work, individual work.

Differentiation

Children are divided into groups according to ability.

Each teacher organises work taking into account the varying mathematical abilities within the class. Group working has an advantage, whereby children of a similar ability can be given work at a suitable level different to that of the rest of the class. Less able and talented children may require a larger proportion of individual teaching to help reinforce concepts or expand their capabilities.

Use of Calculators

Calculators are available for all classes. Skills in using them efficiently are developed alongside the curriculum content in KS1 and KS2. They are encouraged to be used as an aid and as a means of answering work. It is important that children still record the calculation that they performed using the calculator to check work or to explore number patterns.

ICT

A variety of different programs are used to introduce and/or reinforce concepts. Easiteach Maths, Powerpoint presentations, Interactive Teaching Programs (ITPs) and websites are used by teachers using an interactive white board or lap top and projector. Children use appropriate websites and other suitable programs in either the ICT suite or using the lap tops.

Assessment

Children's work is marked according to the agreed school policy and their performance continually assessed by class teachers. The teacher also assesses children on Key Objectives regularly. The teacher passes relevant information to other teachers and to the Mathematics Leader.

End of KS1 and KS2 SATs results and Teacher Assessments are reported to parents, LEA and DFE as required by law. Teachers discuss pupil progress with parents on Consultation days, IEP meetings, and written annual reports are sent to parents in Term 6. End of KS SATs and optional SATs provide a National Curriculum level for tracking pupil progress.

