
Mathematics Policy

1 Quality of the Curriculum

1.1 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. 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.

The staff at Shocklach have worked hard to understand the factors that lead to high standards in maths, and have developed a common approach to teaching maths throughout the school based on the following assumptions:

- The need to follow the agreed school curriculum, alongside the calculations policies.
- The primacy of mental calculations, backed by accurate and rapid recall of number facts, is acknowledged.
- The importance of incorporating a range of teaching approaches, together with appropriate differentiation.
- The need for a consistent and progressive use of manipulatives to develop models and images to help children to visualise mathematical concepts.

1.2 Aims and Objectives

The aims of mathematics are:

- to promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion;
- to promote confidence and competence with numbers and the number system;
- to develop the ability to solve problems through decision-making and reasoning in a range of contexts;
- to estimate the approximate size of the answer to check the reasonableness of their calculations
- to enable children to confidently use an efficient, reliable, compact written method of calculation for each operation by the time they leave primary school
- to develop a range of mental calculations strategies, aided by informal jottings where necessary
- 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 promote the importance of mathematics in everyday life.

2 Teaching and Learning

1.1 Planning the Curriculum

Mathematics is a core subject in the National Curriculum, and at Shocklach we use the Renewed Primary Curriculum (2014) as the basis for implementing the statutory requirements of the programme of study for mathematics.

Our medium-term mathematics plans give details of the main teaching objectives for each term. They ensure an appropriate balance and distribution of work across each term.

Our short-term planning follows four key principles. They are:

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- a dedicated maths lesson every day
 - controlled differentiation with all pupils working on the same theme where possible
 - emphasis on mental calculation
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- direct, instructive, inductive, applicable, exploratory and reflective teaching with the whole class and groups

In the Early Years Foundation Stage, mathematics is underpinned by the Characteristics of Effective Learning. Child initiated learning opportunities are cross-curricular and children experience a wide range of open-ended problems and resources, both indoors and out. In the EYFS mathematics is also taught as a discrete subject through child-led themes. From Year 1, mathematics continues to be taught as a discrete subject, following the principles described above. Mathematical knowledge is applied and skills reinforced whenever relevant in other curriculum areas.

1.2 Assessment and Recording

Assessment in maths is viewed as part of the assessment for learning cycle. Learning objectives are shared with the children in every lesson. Children are provided with opportunities for self/peer-assessment and improvement. Where possible feedback is at the point of learning (see our Effective Feedback policy). Teachers monitor the acquisition of skills, knowledge and understanding through appropriate teacher intervention, observations and discussions with groups and individuals.

At the end of each term we assess pupils using both formative and summative assessments, we use this information to track progress of pupils and ensure that all pupils are on track to meet their end of year targets. We make long-term assessments towards the end of the school year, and we use these to assess progress against school and national targets. We use the national tests for children in Year 2 and Year 6, plus teacher assessment processes for all other years.

1.3 Special Educational Needs and Disabilities (SEND) and Inclusion

Where necessary, adaptations will be made to the curriculum, to equipment and to resources to allow access to maths for pupils with SEND, including provision for pupils that are exceptionally able in mathematics.

1.4 Resources

There is a wide range of manipulatives to support the teaching of mathematics across the school. All classrooms have access to resources such as diennes, Numicon, arrow cards, number lines, hundred squares, bead strings and unifix cubes. Other resources, such as equipment for capacity, measure, time, fractions and shape are also available. A range of software is available online.

3 Achievement and Standards

1.1 Monitoring and Evaluation

Monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the mathematics subject leader. The work of the mathematics subject leader 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. The mathematics subject leader evaluates strengths and weaknesses in the subject and indicates areas for further improvement in their subject action plan. The headteacher allocates staff meeting time to the mathematics subject leader when necessary so that she can review samples of children's work and non-contact time to undertake lesson observations of mathematics teaching across the school.

4 Leadership and Management

1.1 Role of the Subject Leader

The role will include:

- Inspiring an exciting and creative approach to maths teaching
- Supporting maths teaching through advice, guidance, PD and resources
- Sharing information acquired from courses or other sources that may be beneficial to staff
- Reviewing the maths policy and monitoring its implementation
- Regularly evaluating the maths scheme of work and amending as necessary
- The management, maintenance and storage of resources
- Organising pupil's participation in maths workshops and events
- Reporting to parents, governors and others when appropriate

1.2 Role of the Governing Body

A named member of the school's governing body is briefed to oversee the teaching of mathematics. This governor meets regularly with the subject leader to review progress.

1.3 Continuous Professional Development

All subject leaders are given the opportunity for CPD specifically related to developing their role in leadership and management. Whole school and individual CPD will be planned in line with the priorities in the SSDP.

This policy was written in Autumn 2014

Agreed by Governors

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Reviewed by M Gilbert and R Cobden 12.1.22

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