



Barrowby Church of England Primary School

Mathematics Policy

1. Introduction

- 1.1 This policy outlines the purpose, nature and management of the mathematics taught and learnt in our school. Further details will be found in the school's Curriculum Planning, the National Curriculum (2014), The Statutory Framework for the Early Years Foundation Stage (2021), The ESSENTIAL Maths: Written Calculation Progression Herts for Learning Progression in Mental Mathematics documents. This policy should be read in conjunction with these documents.
- 1.2 The school policy for mathematics reflects the consensus of opinion of the whole teaching staff. It has been drawn up as a result of staff discussion and has the full agreement of the governing body. The policy is available to all parents and can be seen on request.
- 1.3 The implementation of this policy is the responsibility of all the teaching staff.

2. The Nature of Mathematics

- 2.1 Mathematics is essential in everything we construct, everything we calculate and almost every problem which we have to solve in our daily lives. This is reflected in school where the use of mathematical knowledge, skills, understanding and language is required in many areas of the curriculum. Children's knowledge, skills, understanding and language in mathematics develop as they use it in practical activities, to solve relevant, real life and meaningful problems and to explore the patterns and relationships on which mathematical concepts depend.
- 2.2 Our vision is to create confident and resilient mathematicians who can embed and apply mathematical thinking across the curriculum and beyond.
- 2.3 The National Curriculum for mathematics aims for all children to become fluent in the fundamentals of mathematics, reason mathematically and solve problems by applying mathematics to a variety of routine and non-routine problems.

3. Entitlement

The programmes of study, in the National Curriculum, detail the statutory guidance to be followed in each year group. In addition to this, non-statutory notes and guidance are offered for each year group. Pupils in Reception will work towards the expected level of development in accordance with the Statutory Framework for the Early Years Foundation Stage (2021).

3.1 EYFS and KS1

Early Years Foundation Stage

In the Early Years Foundation Stage, our educational programme for mathematics is drawn from the Statutory Framework for the Early Years Foundation Stage (2021). Mathematics is a specific area of this curriculum and is subdivided into Numbers and Numerical Patterns.

Key Stage 1

Across the programmes of study in Year 1 Number, Measurement and Geometry are developed. These are then continued in Year 2 with the addition of Statistics.

3.2 Key Stage 2

At lower Key Stage 2 Number, Geometry, Measurement and Statistics are the focus of the programmes of study. During this stage, the principal focus is to ensure pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value.

In Year 5 the programmes of study include Number, Measurement, Geometry and Statistics. These are then continued into Year 6 and supplemented by Ratio and Proportion and Algebra.

- 3.3** Across both key stages, the sections of the programme of study interrelate. Developing mathematical language, reasoning and skills in applying mathematics should be set in the context of the other areas of mathematics. Measurement should be associated with statistics and geometry. Calculating skills should be developed in number and through work on measures and statistics. Algebraic ideas of pattern and relationships should be developed in all areas of mathematics.

The National Curriculum reflects the importance of spoken language in pupil's development across the curriculum. Discussion should be used to probe understanding and remedy misconceptions. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof.

4. Implementation Procedures

- 4.1 We teach the National Curriculum through following the Herts for Learning's Essential Maths teaching sequence, enabling us to deliver a carefully planned progression of knowledge and skills that ensures consistency across the key stages. The sequences are written as a spiral curriculum in which learning is built upon step by step, sequence by sequence and year on year.
- 4.2 The school's Mathematics Long Term Planning for each year group details the areas to be covered across the Autumn, Spring and Summer terms. Teachers follow the Subject Curriculum Stepping Stones Document which outlines the learning objectives/steps in each learning sequence, supplemented by weekly learning sequences containing planning support.
- 4.3 Children are given opportunities for:
- practical activities, including the use of manipulatives
 - problem solving
 - reasoning opportunities
 - mathematical investigations
 - individual, group and whole class discussion and activities
 - learning through mathematical games
 - use of resources to support mathematical understanding
 - use of the outdoor classroom and other outdoor areas.

The mapping of Mathematics across school shows clear progression in line with age related expectations. Pupils are challenged and we encourage a child led approach whereby pupils can take ownership of their learning, this ensures that skills and knowledge are built on year by year and sequenced appropriately to maximise learning for all children.

- 4.4 Mathematics is used, applied and developed through activities in other areas of the curriculum where appropriate. Opportunities to deliver mathematics in creative contexts is also sought.

4.5 Methods of Calculation

The school has adopted the Herts for Learning ESSENTIALMaths Written Calculation Progression document which clearly details the progression in calculation for each of the four operations and is a supplement to this policy. The school is also supported by the ESSENTIALMaths: Progression in Mental Mathematics document. Progression through the Calculation policy will be through stage, not age with the aim of the pupils in Year 6 using and understanding the formal, standard short method for each operation. Children throughout the school will be encouraged to use mental calculation as a first resource whenever possible and reason whether a particular method is appropriate to use.

- 4.6 A wide range of concrete maths resources to support maths learning are available in each classroom matching the relevant levels of the particular class. Teachers will select the manipulatives appropriate to the development of the concepts and skills they are teaching.

4.7 The Organisation of Mathematics.

All teachers have a responsibility for teaching mathematics throughout the school. Children are taught in their class group. Teachers will group their children in a variety of ways according to the nature of the activity, including some whole class teaching and individual work. Mathematics will be taught daily and will last one hour.

Each Maths lesson will have a fluency session, lasting 10-15 minutes at the beginning of the session, supported by the Essential Maths Fluency slides. These sessions ensure that previously taught knowledge is revisited regularly and embedded securely.

The Mathematics Coordinator is responsible for supporting and guiding teachers, ensuring that they receive adequate training, and monitoring all the mathematics in the school.

- 4.8 Specific issues within mathematics related to the EYFS:

- Emphasis is placed upon practical play activities designed to develop mathematical language.
- Most mathematics will be developed through practical activities using a variety of resources and play.

- 4.9 Specific issues within mathematics related to Special Educational Needs Pupils:

- Children with learning difficulties in mathematics will have math targets on their SEND support plans.
- Pupils with SEND will participate in the daily mathematics lessons alongside their class.

- Pupils with SEND will be supported in mathematics through the use of learning support, concrete resources and other scaffolding where appropriate to ensure they can access learning at the level of their peers.
- Where needed, additional intervention may take place to address other barriers.

4.10 Specific issues within mathematics related to Equal Opportunities.

- Positive attitudes towards mathematics are encouraged in both boys and girls.
- We aim for all children to foster an excitement and enjoyment of the subject.

4.11 Specific issues within mathematics related to parental involvement.

- Maths targets are communicated to parents in every child's Reading Record each term.
- At KS2 children are expected to practise times tables facts and other mental facts at home.
- Children upwards of Year 2 have the opportunity to practise their times tables using an online application – Times Table Rockstars.

4.12 Resources for mathematics.

- (i) Concrete Resources are available in individual classrooms and are accessible to the children, to support their learning. Some resources are held in central resource areas which are accessible to all teachers.
- (ii) Each class has a number of appropriate resources which are accessible to children. Practical resources are held in central resource areas accessible to all.
- (iii) Each classroom should have a mathematics display where work can be celebrated. There could also be interactive materials to support learning such as number lines and key vocabulary on display.

5. **Assessment**

5.1 Teachers make formative assessments of pupils on a daily basis and these are used to inform planning. This may take the form of annotations on learning sequences. In addition to this, teachers provide feedback to children in each lesson, this may be verbal or written to support the child.

5.2 There are 3 assessment points across the academic year for KS1 and KS2 in the form of a summative assessment in each term (NTS) which include an arithmetic and reasoning paper. These will be recorded on the cohort tracker- Arbor. This is in addition to the short-term assessments are made on a daily basis to help support the ongoing cycle of assess, plan, teach, practise/apply and review.

5.3 Teachers will update pupil targets each term as a result of short-term assessments. These targets will be recorded in the back of the Reading Record at KS1 as well as KS2 as a means of communicating them with parents. Pupils will be encouraged to reflect on their own achievements and enter into a dialogue with the teacher about their next targets.

5.4 Year 6 teachers will make final teacher assessments after completion of the SATS in the summer term. All pupils at KS1 and KS2 will be awarded a level of attainment for Mathematics at the end each academic year and this will be reported to parents through

the end of year report. Attainment will now be expressed as 'working towards the standard'(WTS), working at the expected standard (EXS) and working at greater depth within the standard (GDS).

5.6 In the Early Years Foundation Stage, at the end of the year, a judgement will be given for each child whether they have achieved a good level of development.

5.7 Copies of the assessments are retained as evidence in individual children's folders.

6. Number Formation

6.1 Handwriting is a fine motor skill which is not dependent on intelligence. Therefore, most children should be able to achieve a legible, attractive style of number formation e.g. numbers formed correctly with consistency in shape and size.

6.2 Number formation is taught in the Foundation Stage in line with the Nelson and School Based Handwriting Scheme and is a skill practised on a regular basis throughout school. Children are given opportunities to build their fine motor skills through practical activities and through use of the school's resources.

6.3 Children are taught to appropriately form numbers in the following way:

1 2 3 4 5 6 7 8 9 0

7. Background Documentation

7.1 This policy was informed by reference to the National Curriculum, Statutory Framework for the Early Years Foundation Stage (2021) together with guidance from the ESSENTIALMaths: Written Calculation Progression Herts for Learning Progression in Mental Mathematics documents.

8. Mathematics Policy Review

This policy is reviewed by the Head teacher, staff and Governors in accordance with Barrowby School's Policy and Review Cycle for approval by the Full Governing Body, every 4 years.

Last reviewed: September 2025

Next review: September 2028