



## MORTON CHURCH OF ENGLAND (Controlled) PRIMARY SCHOOL

### MATHS POLICY

#### 1. Introduction

- 1.1 Mathematics is a core subject within the national curriculum and will be taught as a discreet subject. This policy outlines the purpose, nature and management of teaching mathematics in our school.
- 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.
- 1.3 The implementation of this policy is the responsibility of all the teaching staff.

#### 2. The Nature of Mathematics

- 2.1 Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, a sense of enjoyment and curiosity about the subject.
- 2.2 The **National Curriculum for Mathematics** aims to ensure that all pupils:
  - become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
  - reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
  - can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including

breaking down problems into a series of simpler steps and persevering in seeking solutions.

### 3. **Entitlement**

3.1 The National Curriculum for Mathematics programmes of study are:

#### Number

- Number and place value
- addition and subtraction
- multiplication and division
- fractions - including decimals and percentages

#### Ratio and Proportion

#### Algebra

#### Measurement

#### Geometry

- properties of shapes
- position and direction

#### Statistics

3.2 All children will have access to all the programmes of study at an appropriate level.

### 4. **Implementation**

4.1.1 The programmes of study set out in the National Curriculum for Mathematics form the content of the school curriculum for mathematics, and the activities which children undertake are planned from these.

4.1.2 All children will receive daily teaching to develop mental skills.

4.1.3 Teachers will take advantage of mathematical opportunities in other areas of the Curriculum.

4.1.4 Planning will match the Programmes of Study for each year group.

4.2.1 Each term children will be involved in practical activities, problem solving, mathematical investigations, individual group and whole class discussions and activities and the use of ICT.

4.2.2 Children will be encouraged to present their work in different formats suitable for purpose and audience.

- 4.2.3 Work will be structured through planning and monitoring to provide for progression and consolidation.
- 4.2.4 Activities will include short tasks for instant success and extended pieces of work to allow for in-depth study and development.
- 4.2.5 A mixture of open and closed questions and tasks will be used. Our key questions are used in all classrooms to encourage mathematical reasoning: 'What's the same? What's different? What do you notice?'
- 4.3 Mathematics is used, applied and developed through activities in other areas of the curriculum where appropriate.
  - 4.4.1 Throughout the school children will be encouraged to use mental calculations as a first resource wherever possible.
  - 4.4.2 Standard written methods for computation will be introduced in Key Stage 2 in accordance with our calculation policy. This policy is relevant to all year groups and encourages the use of practical equipment to support a concrete understanding of calculations at all levels (see appendix)
  - 4.4.3 All children will have regular opportunities to practice and develop knowledge of number facts and mental calculation strategies.
  - 4.4.4 Calculators will be used when it is appropriate to the task.
- 4.5.1 Children are taught in their normal class group. They are taught the objectives relevant to their year, ensuring they are secure in the end of year standards before moving on to the next year.
- 4.5.2 Teachers group their classes in a variety of ways according to ability and the nature of the activity.
- 4.6.1 All teachers have a responsibility for teaching mathematics throughout the school.
- 4.6.2 The mathematics team is responsible for supporting and guiding teachers, ensuring that they receive adequate training and monitoring mathematics in the school.
- 4.7.1 When teaching mathematics to under 5's emphasis is placed upon practical play activities designed to develop mathematical language.

- 4.8.1 Children with learning difficulties in mathematics will have mathematical targets on their IEPs.
- 4.8.2 Children with SEN will participate in the daily mathematics lesson.
- 4.8.3 Pupils with SEN will be supported in mathematics by using different resources and tasks when appropriate.
  
- 4.10.1 Positive attitudes towards mathematics are encouraged in both boys and girls.
- 4.10.2 All children should develop an enjoyment of mathematics.
  
- 4.11 Children will be supervised by adults according to ratios in the Health and Safety policy when participating in mathematical activities outdoors.
- 4.12 Children are encourage to learn times tables at home and practise their learning using *mathletics*. Additional maths activities may be sent home to share with parents.
- 4.13 Each class has its own resources, which are accessible to all children.
- 4.14 Shared resources are kept in a central area and teachers have a list of these resources to assist with their planning.

## 5. **Assessment**

- 5.1.1 Mathematical activities should provide assessment opportunities.
- 5.1.2 Assessment of daily lessons will inform future planning. Children should respond to their 'pink to think' comments with their purple polishing pen. If they have met the learning objective, this should be ticked by the teacher.
- 5.1.3 Teachers will carry out assessments for each child each half-term on the areas of mathematics that have been focused. The assessment will inform teachers future planning and pupil attainment will be recorded on i-track.
- 5.1.3 Children in Y3, Y4 and Y5 will use the NFER assessment materials at the end of the year.
  
- 5.3 All assessments should be used in subsequent planning and for diagnosing individual's progress. End of year standards are recorded in the children's books. When a child has achieved that standard, the teacher

dates the relevant standard on their sheet. A child is deemed to be secure in that standard if they can apply it independently.

6. **Background Documentation**

This policy was informed by reference to the National Curriculum for Mathematics and our calculation policy as provided by CfBT.