NAVENBY CHURCH OF ENGLAND PRIMARY SCHOOL

MATHEMATICS POLICY

This policy was approved by Governors on 3rd July 2025 and will be reviewed annually.

1. Introduction

1.1 Mathematics is a core subject within the national curriculum. This policy outlines the purpose, nature and management of the mathematics taught and learned in our school.

1.2 The implementation of this policy is the responsibility of all the teaching staff.

2. Curriculum Intent

2.1 Our curriculum aims:

- Learners should develop a sense of enjoyment and curiosity about mathematics.
- To ensure that all pupils recall the fundamentals of mathematics fluently.
- To equip the children with the knowledge and skills to reason mathematically alongside strategies to solve problems independently.
- To encourage children to use mathematical vocabulary confidently and become effective communicators of mathematics.
- For children to be aware of the everyday uses and applications of Mathematics in our wonderful world.
- To equip children with the Mathematics knowledge required to be ready for the next stage in their education.

3. Entitlement

The Programmes of Study for mathematics in the national curriculum are broken down into the following areas for each year group:

- *Number* (place value, addition and subtraction, multiplication and division and fractions)
- *Measurement* and *Geometry* (properties of shapes and position and direction)
- *Statistics* (Year 2-6 only)
- *Ratio and Proportion* and *Algebra* (Upper Key Stage 2)

Reception children follow the Early Years Foundation Stage (EYFS) curriculum where mathematics is a specific area of learning in the reformed EYFS and is broken down into 'Numbers' and 'Shape, space and measure'.

4. Implementation

4.1 The programmes of study are taken from the National Curriculum for mathematics, and the activities which children undertake are set out by the school in the mathematics long term plans. The curriculum will follow the White Rose blocked approach, allowing children the opportunity to embed concepts fully before moving on. Daily 'flashbacks' will provide opportunities to revisit prior learning and daily fluency questions will allow children to become proficient in using formal written methods. Children will receive daily teaching to develop mental skills, and strategies for developing verbal explanations.

4.2 Children in all year groups are given opportunities for:

- Practical activities
- Reasoning (verbal and written) and Problem solving
- Using ICT where appropriate
- Recalling key facts instantly (KIRFs)

- Learning through mathematical games
- Learning through other areas of the curriculum
- Understanding mathematics in real life

4.3 Mathematics is used, applied and developed through activities in other areas of the curriculum where appropriate in all key stages. Specific lessons involving investigations are undertaken regularly and at the teacher's discretion.

4.4 To improve children's oracy skills and their understanding of mathematical vocabulary, relevant vocabulary for each lesson is explicitly taught and put on display, and the use of 'Let's Talk Maths' during inputs encourages children to explain their reasoning verbally, with the use of mathematical vocabulary encouraged.

4.5 Pupils throughout the school are taught and encouraged to use mental calculation as a first resource whenever possible. There is an element of mental arithmetic in every lesson, including opportunities to learn mental strategies practically to support this.

Children are encouraged to develop their own strategies for written calculation from their mental skills and their understanding of the number system, as well as specific and appropriate written methods which are built on from previous year groups and are taught by the teacher.

Standard written methods for mathematical calculations are introduced during Y3, Y4, Y5 and Y6, according to the needs of individual children and as detailed in the National curriculum programmes of study. We also have a written calculation policy in place which develops a progressive approach to formal written methods for each teacher to follow for each year group.

Alongside mental calculation strategies all children have regular opportunities to memorise and practise key instant recall facts (KIRFs) which are mapped out for each year group.

4.6 A wide variety of commercial resources are available for use as teacher reference. Resources are generally kept in the classroom, online e.g. white rose maths hub or in the G: drive folder; where materials are shared between classes they are stored in a central location.

4.7 Emphasis is placed upon practical play activities designed to develop mathematical language competencies in the Foundation Stage. Across Key Stage 1, practical activities remain more of a focus than written forms.

Children in Key Stage 1 are given regular access to concrete (practical) and pictorial forms of problems.

4.8 The application of mathematics to real-life problem-solving situations (including money) is addressed where appropriate throughout the school in order to develop 'inspired and aspirational learners'.

4.9 With a view to demonstrating 'inspirational teaching' and developing 'inspired learners', we will endeavour to provide experiences for children in mathematics that involve entrepreneurial, investigative and collaborative approaches to mathematics learning such as through our annual 'Mathematics/Rockstar days', home learning project work and cross curricular topic work.

4.10 In order to develop 'aspirational targets' for our learning, Mathematics celebration assemblies will allow for children to see and aspire to high standards in mathematics demonstrated by children across all year groups, chosen and celebrated by the teachers. Working walls and mathematics work on displays in the classroom will also demonstrate high standards of learning for children to aspire to.

4.11 Mascots that represent our drivers of collaboration, resilience and curiosity will be used on maths displays to demonstrate when these qualities are shown in maths lessons.

4.12 Children on the SEN register for mathematics will have mathematical target(s) included on their ANPs.

Across the school, pupils with SEN are supported in mathematics by support staff under the direction of the SENCo and teaching staff, using resources and differentiated tasks where appropriate.

4.13 All children irrespective of gender, race or ability should be given quality first teaching to develop an enjoyment of mathematics.

4.14 Children are given the opportunity to use a range of ICT programmes to enhance their learning in mathematics, for example, 'Numbots' in Key Stage 1 and databases in Key Stage 2 and access to our online subscription to 'Timestables Rockstars' for all year groups both at home and at school.

4.15 Children throughout the school are mainly grouped according to ability within their classrooms, but are also encouraged to work independently, in pairs or mixed ability groups depending on the nature of the task.

4.16 Misconceptions are routinely explained verbally and corrections often made through discussion with the class or a group of pupils.

4.17 All written mathematics work is completed in pencil and errors are noted. Errors can be used by teaching staff to make teaching points throughout the daily mathematics lesson, particularly in the plenary. Corrections are written out again when the teaching staff deem it necessary so that the child will learn a specific point.

The recording of written work progresses from Year 1 to Year 6. Key Stage 1 initially use folders in Year 1, moving onto books with 10mm squares in Year 2 then followed by yellow books with 7mm squares in KS2.

All work is to be dated and marked with a learning objective by either the teacher (KS1) or the child (KS2). This should be underlined with a ruler where appropriate.

5. Assessment

5.1 Summative assessments take place in terms 2, 4 and 6 for Year 1 - 5 using the White Rose Autumn, Spring and Summer Assessments, and results are used to track each child's progress across the year and key stage. Year 6 use prior SATs papers to better prepare the children for their end of year assessments. Foundation stage children are assessed as 'emerging' or 'expected' against the 'Early Learning Goals' in the reformed EYFS.

5.2 White Rose End of Unit assessments are used at the end of each block to monitor progress and inform future planning or intervention groups. Results are used to identify strengths and weaknesses across the class, as well as for individual children.

5.3 Pupils will be regularly assessed on their knowledge of key instant recall facts (KIRFs) which are mapped out to support the learning of each year groups programmes of study. This information will then be used by teachers to plan interventions and ensure the children are secure with this fundamental knowledge as detailed in the national curriculum.

5.4 To ensure Year 4 children are prepared for the Multiplication Tables Check in June, as part of the key instant recall facts, the school will assess their times tables knowledge as follows: by the end of Year 2 - the 2, 5 and 10 times tables; by the end of Year 3 - the 2, 3, 4, 5, 8 and 10 times tables and by the end of Year 4 - multiplication facts up to 12 x 12.

6. Monitoring

6.1 The mathematics subject leader (and shadow) will review the mathematics policy each year with the designated Governor responsible for mathematics and will monitor an aspect of mathematics teaching and learning throughout the year. To do this effectively, the Mathematics subject leader and shadow will analyse the SATs results and other records handed in by staff in order to make an informed decision on the monitoring focus.

6.2 Monitoring of standards could include: work scrutiny, planning scrutiny, discussions with pupils/staff, audits or lesson observations. A report, with findings and recommendations, is published by the subject leader for staff to digest and act on. The Governor will work with the subject leader to produce a report for the Governing Body which is first shared with the Headteacher.

7. Background Documentation

This policy was informed by reference to the statutory and non-statutory requirements for mathematics from the new Mathematics National curriculum 2014.

8. Review

The Head teacher and staff will review this policy in the Summer Term each year. Any suggested amendments will be presented to the Governing Body which they will discuss before approval.

Policy Approved: 3rd July 2025

Signed:

Chair of Governors: …… Mrs H Jerstice

Head teacher ……. Mr C Elliott