

## Maths Policy

“Mathematics is a creative and highly interconnected 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, and a sense of enjoyment and curiosity about the subject.” National Curriculum 2014

### Intent

At Greenbank Primary, we have adopted a mastery approach to the teaching and learning of mathematics in order to deliver the three aims of the National Curriculum, fluency, reasoning and problem solving.

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 have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- can 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.

“Mastering maths means pupils of all ages acquiring a deep, long-term, secure and adaptable understanding of the subject. The phrase ‘teaching for mastery’ describes the elements of classroom practice and school organisation that combine to give pupils the best chances of mastering maths. Achieving mastery means acquiring a solid enough understanding of the maths that’s been taught to enable pupils to move on to more advanced material.” National Centre for Excellence in Mathematics (NCETM)

By the end of Year 6, we want all pupils to be proficient and confident mathematicians who can fluently manipulate numbers and measures to solve problems across a range of contexts. We aim for children to develop both an appreciation and enjoyment of mathematics, with the ability to communicate their thinking clearly, make connections, and recognise patterns and relationships within the subject. At Greenbank, we believe that every child has the potential to master a deep understanding and love of mathematics.

### Implementation

Pupils are taught using a carefully planned, structured approach endorsed by the NCETM and underpinned by the White Rose scheme of learning. As a school, we have invested in White Rose premium resources and mapped out our whole-school curriculum around this programme to ensure consistency and progression throughout the school.



In addition, we have adopted the Number Sense Programme to strengthen the daily teaching of mathematical fundamentals. This approach supports pupils in committing essential number facts and multiplication/division facts to memory, freeing up working memory and enabling them to apply efficient strategies in a wide range of mathematical contexts.

### Teaching and Learning

The teaching of maths begins from the moment the children arrive in school with Early Morning Maths.

#### Early Morning Maths

At 8:45 each morning, every class takes part in an Early Morning Maths (EMM) session. All pupils have a dedicated EMM book in which this work is completed. The focus of these sessions rotates between:

- Varied Fluency (VF)
- Reasoning and Problem Solving (RPS)
- Recall of key facts (e.g. multiplication and division facts)

Tasks are carefully selected to include:

- Consolidation of previously taught concepts, supporting long-term retention.
- Additional practice of concepts currently being taught, providing opportunities for mastery.

All work is marked and discussed with pupils, allowing misconceptions to be quickly identified and addressed. Where needed, follow-up support is provided within lessons or through smaller intervention groups to ensure gaps in understanding are closed promptly.

#### Maths Lessons

Following on from EMM, all classes then progress into their daily maths lesson. Teachers plan using the White Rose blocks. These blocks are carefully thought out sequences of lessons that progressively build on children's prior learning. These blocks are then broken down into a series of small steps with a mixture of VF and RPS. Mastery aims to embed a deeper understanding of maths by utilising a concrete, pictorial, abstract (CPA) approach so that pupils understand what they are learning rather than just learning to repeat routines. As a school, we have invested in manipulatives to help support a concrete understanding. "With mathematics itself being abstract, concrete maths manipulatives provide the learner a 'window' in, to make sense of the problem at hand by touching them, playing with them, exploring the patterns and relationships which make a huge difference between understanding for depth or just for procedure." Third Space Learning

Our Calculation Policy has been adapted to support the CPA approach and the schools use of the White Rose documents.

#### Number Sense

At Greenbank, we use the Number Sense Programme to strengthen pupils' fluency in the fundamentals of mathematics. This programme provides a structured approach to teaching and learning addition and subtraction strategies in Key Stage 1, and later supports multiplication and division in Key Stage 2. The emphasis is on developing efficient mental calculation skills, reducing cognitive load so that children can focus on reasoning and problem solving.



We also place strong emphasis on the teaching and recall of number facts, including number bonds, addition and subtraction facts, and times tables. Regular, purposeful practice helps pupils to commit these essential facts to long-term memory. This automaticity allows children to confidently manipulate numbers, apply strategies to increasingly complex problems, and make connections across different areas of mathematics.

This approach is further supported by Times Tables Rock Stars, which all children can access both at school and at home. To promote engagement and celebrate success, pupils also take part in 'Going For Green', where those achieving the required standard are awarded a certificate and badge during the weekly celebration assembly.

### **EYFS**

In the Early Years, both Nursery and Reception follow the White Rose scheme of learning, which fully covers the statutory requirements of the *Statutory Framework for the Early Years Foundation Stage (2025)*. The scheme reflects our ethos of a hands-on, practical approach, providing children with frequent opportunities to explore, revisit and embed key mathematical concepts across the year.

The EYFS framework states that *“developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically.”* Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them, and the patterns within those numbers. In addition, the framework highlights the importance of rich opportunities to develop spatial reasoning skills across all areas of mathematics, including shape, space and measure, as well as nurturing positive attitudes and curiosity towards mathematics.

- Nursery: Learning is organised into 24 small blocks, providing a variety of opportunities to develop early number sense, shape, measure and spatial thinking.
- Reception: Learning is structured into 18 blocks, carefully sequenced to build on prior knowledge and extend children's understanding of number, shape, measure and spatial awareness.

This structured and practical approach ensures that children build secure foundations in mathematics, preparing them effectively for progression into Key Stage 1.

### **SEND**

At Greenbank, we are committed to ensuring that all pupils, including those with special educational needs and disabilities (SEND), receive a high-quality mathematics education. We believe that every child can achieve success in mathematics with the right support, scaffolding, and opportunities for success.

#### **In Mainstream Classrooms**

- Teachers use a mastery approach to ensure high expectations for all pupils, including those with SEND.
- Lessons are carefully planned with scaffolding, small steps, and targeted questioning to make learning accessible without lowering expectations.
- Concrete–Pictorial–Abstract (CPA) methods and a wide range of manipulatives are used to support conceptual understanding.
- Misconceptions are addressed promptly, and additional support is provided through targeted interventions and small-group work where needed.



- Personalised learning objectives are planned where appropriate, in collaboration with the SENCO.

### **SEND Hubs**

Children working in the SEND Hubs (Woodlands, Forest Room and Acorn Room) access personalised maths lessons tailored to their individual needs. This provision draws on a range of approaches and resources, including Fluency Bee – a maths programme delivered in short, focused bursts with an emphasis on developing a secure understanding of number and number facts.

### **Our Aim**

Through high-quality teaching, personalised support, and carefully chosen interventions, we aim for all children with SEND to:

- Build confidence and resilience in mathematics.
- Develop fluency in number and number facts at their own pace.
- Experience enjoyment and success in mathematics, fostering a positive attitude towards the subject.

### **Working Walls**

Every classroom at Greenbank has a Maths Working Wall to support children’s current learning. These displays are interactive and dynamic, changing and developing as topics progress. Consistency across the school ensures that pupils become familiar with the format of Working Walls and can confidently use them as a learning tool as they move through year groups.

Working Walls typically include:

- Current methods and worked examples.
- Key vocabulary to support mathematical talk and reasoning.
- Knowledge organisers linked to the current block of work.
- Stem questions to prompt deeper thinking and encourage pupils to question their mathematical understanding.

By providing accessible reference points, Working Walls promote independence, reinforce prior learning, and support pupils in making connections between concepts.

### **Impact**

### **Assessment**

Children from Year 1 to Year 6 are assessed against the National Curriculum statements. Assessment is ongoing and used to inform planning, teaching and intervention.

- At the end of each block of work, pupils complete an assessment covering all elements taught.
- Termly assessments consolidate learning from across the year, helping to track progress and identify gaps.
- All assessment data is recorded on Arbor and reviewed during Pupil Progress Meetings with the Senior Leadership Team (SLT).

Statutory and Formal Assessments



- Year 4 Multiplication Tables Check (MTC): Pupils take a statutory online test in the summer term to assess fluency in all multiplication facts up to  $12 \times 12$ , as required by the National Curriculum.
- End of Key Stage 1 (KS1): Pupils complete optional SATs papers in maths, which are marked internally. Results are used alongside teacher assessments to inform future planning and projections.
- End of Key Stage 2 (KS2): In Year 6, pupils take statutory SATs in mathematics during the summer term. These consist of:
  - One arithmetic paper (40 marks)
  - Two reasoning and problem-solving papers (35 marks each)

Assessment outcomes are used to monitor progress, identify pupils requiring additional support or greater challenge, and inform future curriculum planning.

### **Parental/Community involvement**

We believe it is vitally important to work together with parents and carers to support their child's development of Maths. We promote a positive home/school partnership in the following ways:

- Producing a Calculation Policy that is sent out to parents, also available on the school website
- Termly Parents' Evenings where progress and attainment is discussed
- Sharing of Knowledge Organisers online

### **Staff Development**

Supported by the Maths lean and the wider maths team, teachers are expected to keep up to date with subject knowledge and use current materials that are available in school. Training needs are identified as a result of whole school monitoring and evaluation, appraisal and through induction programmes. These will be reflected in the School Development Plan and the Maths Action Plan.

### **Monitoring and Evaluation**

Maths is monitored and evaluated in the following ways:

- The monitoring of teaching and learning by the SLT and Maths team through observations, learning walks, monitoring of planning, monitoring of displays etc.
- Sampling of pupil work and assessments by the Maths team/SLT
- Analysis of data on Arbor
- Monitoring of intervention programmes such as Number Sense and Number Facts

At Greenbank Primary School to comply with the Online Safety Act 2023, we ensure the following mandatory elements are in place;

- Network Connect and Microsoft Firewall ensure we are compliant with regard to age appropriate monitoring and filtering.
- This includes alerts from Network Connect being reported, logged and kept up-to-date.
- Our link Governor for Safeguarding, E-Safety, Filtering and Monitoring and Designated Safeguarding Lead (DSL) are aware of monitoring and filtering controls, policies and compliance.
- Children are taught how to identify and report harmful content as part of our curriculum.
- Staff receive relevant and on-going training relating to safeguarding and E-Safety.



This policy was drafted by the Maths Lead:

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