New Ash Green Primary School

Maths Policy

Spring 2025

Mathematics 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)

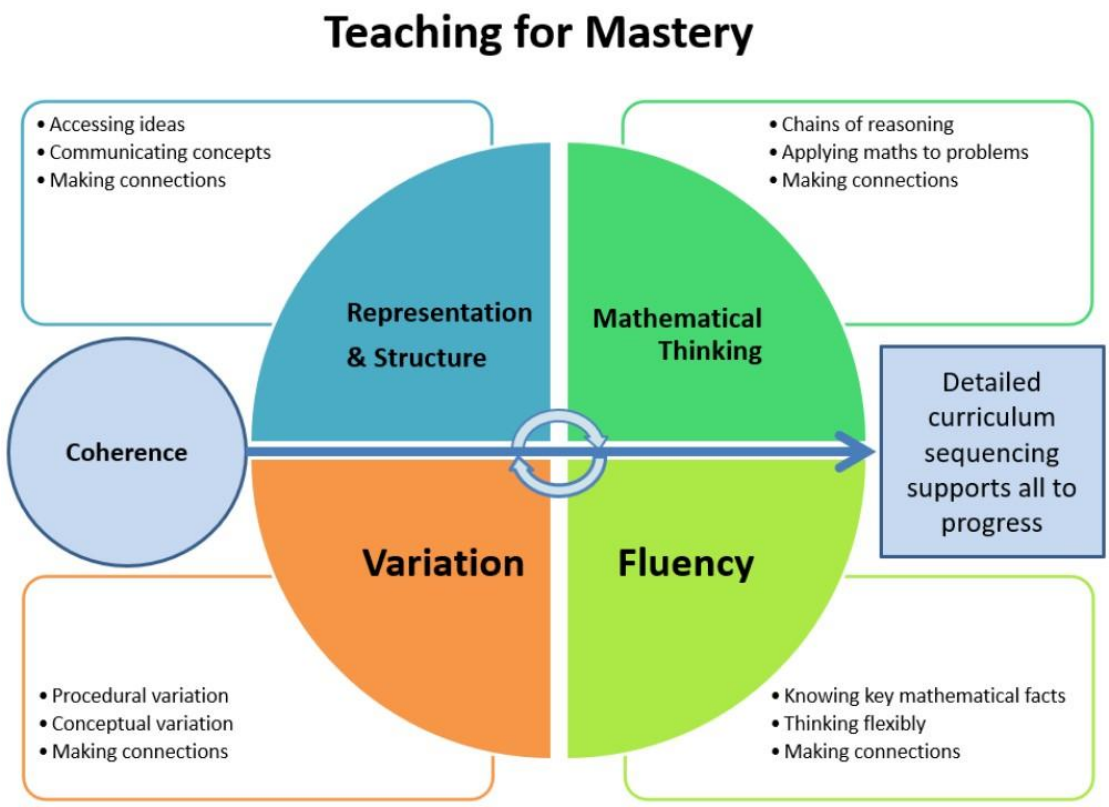
Our aims

- To become confident and proficient with number, including fluency with mental calculation and look for connections between numbers.
- To develop a sound understanding of mathematical concepts through practical and investigational work.
- To become problem solvers, who can reason, think logically, work systematically and apply their knowledge of mathematics.
- To enjoy mathematics, be successful and have a positive attitude to the subject.
- To be able to demonstrate their skills and knowledge and talk about their work using appropriate mathematical language.
- To use mathematics as part of their everyday life in school and at home.

Principles of teaching and learning

Teachers utilise the guidance and expectations set out in the Primary Curriculum (2014) to inform and assist their long term, medium term and weekly planning. Teachers use the White Rose Maths planning to ensure coverage of all curriculum objectives. Concepts are developed sequentially and as a result this ensures continuity and progression from fluency, reasoning and problem solving throughout the Foundation Stage, Key Stage 1 and Key Stage 2. The White Rose materials are supplemented using high quality materials such as from the National Centre for Excellence in the Teaching of Mathematics and the Department for Education.

Our teaching for mastery is underpinned by the NCETM's 5 Big Ideas.



- Opportunities for Mathematical Thinking allow children to make chains of reasoning connected with the other areas of their mathematics.
- A focus on Representation and Structure ensures concepts are explored using concrete, pictorial and abstract representations, the children actively look for patterns and generalise whilst problem solving.
- Coherence is achieved through the planning of small, connected steps to link every question and lesson within a topic.
- Teachers use both procedural and conceptual Variation within their lessons and there remains an emphasis on Fluency with a relentless focus on number and times table facts.

In each classroom, we believe that:

- Everyone can learn mathematics to the highest levels.
- If you 'can't do it', you 'can't do it yet'.
- Mistakes are valuable.
- Questions are important.
- Mathematics is about creativity and problem solving.
- Mathematics is about making connections and communicating what we think.
- Depth is much more important than speed.

Organisation

- All children receive a daily maths lesson, although mathematical skills run through many other areas of the curriculum.
- Year 1 and Year 2 have a Mastering Number session each day which is at a different time to the main maths lesson.
- Year 3 to Year 6 have a Fluency Focus session each day lasting between ten and fifteen minutes. This is in addition to the main maths lesson.
- Each class also has a focused Talk for Maths session each week.
- Every classroom has a range of manipulatives to support children's learning, with additional resources stored centrally.

Teaching of Maths

- Maths lessons are sharply focused with key new learning points identified explicitly.
- There is regular interchange between concrete/contextual ideas, pictorial representations and their abstract/symbolic representation.
- Mathematical generalisations are emphasised as they emerge from underlying mathematics, which is thoroughly explored within contexts that make sense to pupils.
- Making comparisons is an important feature of developing deep knowledge. The questions "What's the same, what's different?" are often used to draw attention to essential features of concepts.
- The importance of sentence stems is recognised and they are used across the whole school. They help pupils to verbalise and embed mathematical ideas and provide pupils with a shared language to think about and communicate mathematics.
- Formative assessment is carried out throughout the lesson; the teacher regularly checks pupils' knowledge and understanding and adjusts the lesson accordingly. Gaps in pupils' knowledge and understanding are identified early by in-class questioning. They are addressed through individual or small group intervention.
- Teachers discuss their mathematics teaching regularly with colleagues, sharing teaching ideas and classroom experiences in detail and working together to improve their practice.

EYFS

Mathematics within the EYFS is developed through purposeful, play based experiences.

Mastering Number is followed in the EYFS and aims to secure firm foundations in the development of good number sense for all children.

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically.

To do this we:

- Provide opportunities for pupils to count confidently.
- Focus on pupils developing a deep understanding of the numbers to 10, the relationships between them and the patterns within these numbers.

- Provide frequent and varied opportunities to build and apply this understanding about numbers.
- Use stem sentences and develop a secure base of knowledge and vocabulary from which mastery of mathematics is built.
- Provide rich opportunities for pupils to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.
- Foster positive attitudes and interests in mathematics, look for patterns and relationships and spot connections.

Parental Involvement

We encourage parents to be involved by:

- Inviting them into school three times yearly to discuss the progress of their child.
- Inviting parents to come into school to look at their child's maths learning.
- Providing parents with a termly newsletter which includes information about their child's maths learning.
- Providing parents with a yearly report of their child's achievements.
- Encouraging parents to support their child's maths learning using Purple Mash and Times Table Rock Stars at home.
- Stay and learn sessions.
- Providing weekly homework activities.

Inclusion and SEND

Teaching for mastery offers all pupils access to the full maths curriculum. This inclusive approach, and its emphasis on promoting multiple methods of solving a problem, builds self-esteem and resilience in pupils. Though the whole class goes through the same content at the same pace, there is still plenty of opportunity for differentiation. Taking a mastery approach, differentiation occurs in the support and intervention provided to different pupils. The questioning and scaffolding individual pupils receive in class as they work through problems will differ, with higher attaining children, or those pupils who grasp concepts quickly, challenged through more demanding problems which deepen their knowledge of the same content. Those children who are not sufficiently fluent are provided additional support to consolidate their understanding before moving on. Pupils' difficulties and misconceptions are identified through immediate formative assessment and addressed with interventions - commonly through individual or small group support. Pupils with SEND may have suitable objectives from the National Curriculum for Mathematics or the EYFS curriculum. These targets may be worked upon within the lesson as well as on a 1:1 basis outside the mathematics lesson. Maths focused interventions in school help pupils with gaps in their learning and mathematical understanding. These are delivered by trained support staff and overseen by the class teacher.

Assessment

Assessment is an integral part of teaching and learning and is a continuous process. Formative assessment is undertaken in lessons:

- Asking purposeful questions

- Facilitating and listening to discussions
- Analysing errors and identifying misconceptions
- Making observations

Moderation takes places termly within school and with local schools. Teacher judgements are then entered onto BROMCOM in January, April and July.

Teachers discuss the progress of their pupils at on track meetings and targeted support is given to pupils when needed.

A termly times table assessment takes place from Year 2 to Year 6.

An SEND surgery takes place termly where teachers can book a time to speak to the Inclusion Manager about individual children.

The optional Year 2 SATS are used in the summer term to help inform teacher judgements of pupils.

Year 4 pupils complete the statutory multiplication tables check (MTC) in June.

Year 6 pupils complete the national tests in May.

All assessments that have taken place during the year are used to inform the teachers' final end of year judgements.

Role of the maths subject leader

- To lead in the development of maths throughout the school.
- To monitor the planning, teaching and learning of mathematics throughout the school.
- To help raise standards in maths.
- To provide teachers with support in the teaching of mathematics.
- To monitor and maintain high quality resources.
- To keep up to date with new developments in the area of mathematics.