Marsh Green Primary School



Mathematics Policy

Achieve, Believe & Celebrate











Intent

At Marsh Green Primary School, mathematics is underpinned by our three curriculum drivers: communication & language, social & emotional and real-life experiences. We have high expectations for all, providing pupils with the opportunity to be 'the best that they can be'. Our maths curriculum is built on the National Curriculum, based on the teaching for mastery principles, underpinned with White Rose Maths, NCETM and the Department for Education's Maths Guidance 2020 to ensure all children are ready to progress to the next step in their learning. We aim to remove any barriers to learning so all children can make their own progress within a secure and caring environment. The Marsh Green maths curriculum instils into our pupils that mistakes are magic, encouraging resilience, empathy and retention.

At Marsh Green, your child will learn

- To talk like a mathematician, using precise mathematical language and stem sentences to explain their mathematical thinking.
- To use mathematical strategies independently and show resilience when faced with a challenge.
- To represent mathematical concepts and make connections.
- To develop secure procedural fluency and conceptual understanding, becoming mathematically observant.
- To recall key number facts to automaticity, to reduce cognitive load.

A mathematician leaving Marsh Green in Year 6 is numerically literate, and able to approach a variety of problems using a range of strategies. They display strong skills of arithmetical proficiency, and have a solid grounding in geometry, measurement, data handling and algebra, preparing them for the next stage in their learning.

Implementation

Our maths curriculum provides many learning experiences that are *relevant to real-life*, within a language-rich environment that promotes mathematical thinking, reasoning and problem-solving skills. A whole class mastery approach with high expectations for all pupils, is used to not only meet the needs of the National Curriculum (2014), but also to develop confident mathematicians and a life-long love of maths. We do this through using a Teaching for Mastery approach and our Marsh Green teaching and learning model.

From EYFS to Year 6 all staff use CPA (Concrete, Pictorial, Abstract) and this is supported and celebrated using our working walls.

Our children are encouraged to develop their *communication and language*, *social and emotional* skills using 'mathematical mutter', when children use stem sentences and relevant vocabulary to engage in mathematical discussions.

We use White Rose Maths as our vehicle for teaching for mastery. This scheme is used across school, to ensure progression and consistency. There is a consistent lesson structure from years 1-6, which comprises:

- Flashback 4 to develop fluency in the fundamentals through repeated practice. This is designed based on assessment data.
- Captain Conjecture is used to develop pupils mathematical reasoning.
- Retrieval (Recap Racoon) to activate prior knowledge and assess prerequisites skills and knowledge to ensure that pupils can access new learning.
- Explicit teaching using teacher modelling, I do, we do, you do approach- CPA and mathematical talk are a key feature of this element of the lesson through back and forth interactions.
- Independent practice for children to further develop their fluency, problem solving and reasoning skills to develop a secure understanding of the concept being taught.

We follow a whole school calculation policy, which supports the National Curriculum and the White Rose Scheme of learning. This shows clear progression throughout each year and across a range of skills. The calculation policies provide staff with consistent concrete, pictorial and abstract representations and models, to use within their daily mathematics teaching.

In addition to the daily maths lesson, there is a focus on daily fluency practice to ensure children have foundational number skills. We do this through:

- Year 1- Mastering Number.
- Year 2-6- whole school times table approach, which includes, twice daily times table speed tests and chanting. This helps pupils to *retain* the number facts that they are focussing on.
- Year 5- KS2 Mastering Number to develop pupil's understanding of multiplicative relationships.

Children are encouraged to show *perseverance and resilience*, having the growth mind-set to learn through their mistakes and achieve to be the *best that they can be*.

Assessment

At Marsh Green, we use a range of assessment strategies to analyse pupil progress, identify target pupils and adapt our curriculum to meet the needs of all pupils. These assessment strategies include:

- A prior knowledge quiz at the start of each unit, to activate and assess prior knowledge, ensuring that pupils are ready for new learning. Gaps within prior knowledge are addressed using adapted flashback questions.
- Ongoing assessment in lessons using live marking, to allow teachers to adapt the lesson and intervene in the moment.
- An end of unit assessment, which assesses the pupil's understanding of their current learning.
- An end of term assessment, which assesses the pupils understanding of a range of mathematical concepts, including arithmetic, problem solving and reasoning.
- SEND pupils working on P-Steps are assessed using their individual small steps tracker, as discussed within our termly SEND clinics. Targets are identified and added to their SEND passports, which are monitored closely by the class teacher, maths lead and SENDCo.

SEND and Inclusion

To ensure equity, we tailor the curriculum according to individual needs, to remove barriers using adaptive teaching and small steps for our SEND pupils. Children are aware that support can be offered not only from staff but from their peers

At Marsh Green, we have high expectations for all pupils and believe every child should have access to a broad and balanced curriculum. Teachers will plan for children with EHCPs alongside the school SENDCO during SEND clinics, in line with their next steps to ensure their curriculum is ambitious and designed to meet their needs. SEND pupils will have personalised timetable of support, clearly identifying the provisions, small steps and support needed to allow all pupils to be the **best that they can be**. High quality teaching is essential for children working significantly below age related expectations, and every child will have access to high-quality first teaching. In addition to this, SEND provision should include additional maths intervention and support. This may consist of the following:

- · Pre-teaching
- 'In the moment' or rapid intervention
- Small group work (i.e. 1:4)
- Adapted work based on p-steps for individual child
- Variety of teaching approaches based on identified needs of individual pupils.

Early Years Foundation Stage

We have developed a progressive curriculum for EYFS, using development matters and NCETM, which focuses on core mathematical concepts including subitising, counting, comparison, composition, pattern, shape, space and measures.

Young Explorers

Mathematical concepts are explored through the prime areas of the EYFS curriculum, following the progressive curriculum and high-quality adult interactions.

Nursery

White Rose Maths is used as the basis of the maths curriculum. This includes daily direct teaching and continuous provision activities linked to White Rose Maths.

Reception

Mastering number is used as the basis of the mathematics curriculum. This includes daily direct teaching, small adult-led activities and continuous provision. White Rose Maths is used to plan shape, space and measure.

Role of Subject Leader

- Ensures teachers understand the requirements of the National Curriculum and supports lesson planning.
- Lead continuing professional development; ensures all staff have received necessary training through relevant course, in-house staff training or providing coaching for individual teachers.
- Lead whole school monitoring and evaluation of teaching and learning in Mathematics by
 observing teaching and learning, carrying out learning walks, analysing assessment data to
 plan for whole school improvement, conducting work scrutiny to inform evaluation of
 progress and conducting pupil interviews to highlight pupils voice in regard to the teaching
 and learning within mathematics.
- Ensure that the school's senior leadership team and governors are kept informed about the quality of teaching and learning in Mathematics.
- Work alongside the school's senior leadership team to ensure the learning needs of all pupils are met effectively.
- Review the Mathematics Policy regularly to ensure it is kept up to date.

Mathematics Leads:

Miss A Bootle- Whole School Lead

Mrs H Winstanley- EYFS Support

Mrs Heaton - Early Years Lead/Deputy Head Teacher

Signed:

A. Bootle

H. Winstanley

L. Heaton

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