



Potley Hill Primary School Maths Policy

INTENT

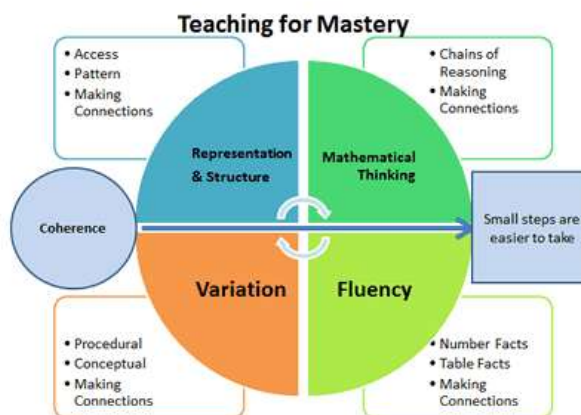
At Potley Hill, we aim to develop children's enthusiasm and excitement for mathematics, and an awareness that it is a vital part of the world around us. We strive to ensure that all children master mathematical concepts at their own level whilst being supported and challenged where relevant. We believe it is important for children to develop a deep, conceptual understanding of mathematical ideas through regular access to practical resources and visual images. Our aim is to develop accurate, efficient and flexible calculators who can confidently apply their knowledge of place value and number to real-life problems and puzzles. Our school values of resilience and creativity encourage children to grapple with meaningful mathematical problems and see mistakes as an important part of the learning process, having the confidence to edit and refine their thinking. We believe it is vital for children to be given opportunities to discuss possible solutions with their peers, create mathematical arguments and engage in the process of reasoning.

IMPLEMENTATION

At Potley Hill Primary School we follow the Mastery Approach to teaching Mathematics. All teachers use both medium term and short-term planning to reflect the program of study set out in the National Curriculum. Termly overviews (medium term plans) from White Rose Maths are used to give an idea of the coverage of topics across the year, and then each unit is planned in more detail by the teacher (short term plans) which are informed by the National Curriculum, White Rose Maths documents and Power Maths Publications, as well as ongoing assessments and teacher judgements. These short term plans ensure that learning is broken down into small, connected steps, building from what pupils already know. Through careful planning and preparation we aim to ensure that throughout the school children are given opportunities for:

- practical activities and mathematical games
- problem solving and reasoning tasks
- individual, group and whole class discussions and activities
- developing a bank of efficient calculation strategies, both mental and written

Our Maths Curriculum 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

Our approach to the teaching and learning of Maths ensures that:

- Most pupils will move through the programmes of study at broadly the same pace
- Pupils who grasp concepts rapidly and should be challenged through being offered rich and sophisticated problems before any acceleration through new content
- Those who are not sufficiently fluent with earlier materials should consolidate their understanding, including through additional practice, before moving on.

Lessons are carefully planned to ensure they are differentiated to meet the needs of all the learners in the class. A variety of methods are used to achieve this:

- Progressive Challenges which begin with activities that might be needed for a scaffolded approach to achieving the objective through to deeper activities that require children to apply and reason with the concept being learnt
- Open-ended Tasks which are activities/investigations where differentiation is by outcome.
- Resourcing which provides a variety of resources depending on abilities e.g. counters, cubes, numicon, 100 squares, number lines, mirrors, diennes
- Flexible Grouping according to ability so that the groups can be given different tasks when appropriate. This means that children will not always be in the same maths group and may move groups depending on the topic.

Teaching of Maths in the Early Years is largely underpinned by the NCETM's Six Areas of Early Maths Learning:

- Cardinality and Counting
- Comparison
- Composition
- Pattern
- Shape and Space
- Measures.

EYFS staff ensure children explore mathematical concepts through active exploration and their every day play-based learning. Children are taught key concepts and develop number sense using a hands-on practical approach and also by following the materials from the NCETM Number Sense Project.

Fluency with calculation

Teachers follow a progressive calculation policy, largely influenced by the NCETM and White Rose Maths that ensures that children can use reliable and efficient methods to solve problems involving all four calculation operations. For more details see our school's Calculation Policy.

Timetables

As part of the curriculum, it is expected that children know up to their 12 times table by the end of Year 4. Across the school, we use the online program Times Table Rock Stars. This program is designed to engage and motivate children to learn their times tables at school and home. All children will be given a unique password, which will remain the same throughout their time in school. We celebrate class achievements weekly with the use of certificates for the most active class on TT Rockstars and most improved class using daily active minutes as a guide.

In addition to TT Rockstars, we follow the Mastering Number at KS2 Programme for Year 4 and 5 children. This is designed to develop a conceptual understanding of times tables to enable children to become more fluent in their

recall and ready for the Multiplication Tables Check (MTC) which all children nationally complete at the end of Year 4.

MARKING

Marking of Maths Books should be completed in line with the Potley Hill Marking and Feedback Policy.

CROSS-CURRICULAR LINKS

Throughout the school we aim to make maths relevant to other areas of the curriculum and to the wider world. We aim to give children opportunities to practise and develop their mathematical skills through posing questions and problems that are set within real life contexts or local, national or world events.

SPECIAL EDUCATIONAL NEEDS

Some children may be working at a level above or below that of the rest of their peer group, or may need special assistance to accomplish particular tasks. Children with SEN (including low and high attainers) are taught within the daily Maths lesson and lessons are differentiated so that all children can access and make progress in their learning. Potley Hill Primary School aims to support and challenge every child.

Where children are thought to need additional help, teachers go through a referral procedure consistent with the Code of Practice on the Identification and Assessment of Special Educational Needs. Parents are informed of any decisions made.

Children with Educational, Health & Care Plans (EHCPs) or who are identified as having specific educational needs (SEN Support), where applicable, children's Personal Plans incorporate suitable objectives that meet their specific mathematical needs. These children receive out of class interventions where they have sessions with an LSA to address the targets set out in their Personal Plans.

INCLUSION AND EQUAL OPPORTUNITIES

Every child is given the opportunity to be included in all aspects of school life and in all areas of the curriculum. Teaching and learning in the school ensures that all children are set suitable learning challenges. A broad range of teaching styles are adopted in response to diverse learning needs. We make every effort to overcome potential barriers to learning for individuals and for groups of children. We aim for Potley Hill Primary School to be an ideal learning environment for nurturing and developing the whole child.

Our ethos for inclusion is supported by our equal opportunities policy. We ensure that equal opportunities in Maths are addressed as follows:

- Pupils with special needs have equal access to the Maths curriculum through the use of differentiated learning strategies and tasks. These are based on individual needs.
- Gender equality is promoted by ensuring that both boys and girls have access to all aspects of the Maths curriculum and that planning incorporates a range of activities appealing to both genders.

ASSESSMENT AND RECORD KEEPING

At Potley Hill Primary School assessment of the children's mathematical ability is expected to be carried out during lessons in order to help inform future planning and teaching.

Ongoing Assessment

In line with our assessment policy, each teacher continuously assesses the attainment of each child against the key objectives for their year group, which are taken from our progression of skills in Maths. These judgements are then logged on Arbor.

Formal Assessment

In addition to the ongoing assessment undertaken throughout units of work, teachers will use termly summative assessments supplied by NTS to reinforce their judgements and provide further opportunities to identify gaps in pupil learning and tailor future lessons. Standardised Scores are then entered onto Arbor together with the teacher assessment, which is informed by the judgements made against the objectives. These teacher assessments and standardised scores are discussed at termly Pupil Progress Meetings. This ensures that children not making the expected progress can be identified and targeted support given to those who need it.

Reporting to Parents

Two Parent Consultations are arranged during the Autumn and Spring Terms, where parents can look at their children's work and discuss their child's progress with the class teacher. Written reports are completed before the end of the summer term. Teachers use the information gathered from the range of assessments they undertake to help them comment on individual children's progress.

When significant changes have been/are made to the mathematics curriculum, parents are invited to a meeting or sent information and parents are continuously kept up to date with the expectations for their child's stage of learning through year group summaries of calculation methods and key information which are given out at Parents Consultations.

MONITORING AND EVALUATION

The Maths Subject Leader regularly works alongside other teachers across the school in order to improve 'teaching and learning.' This may take the form of planning and exploring a range of activities to address a concept, or coaching where they can support teachers in their own classrooms.

Regular formal lesson observations and book scrutinies are used to monitor and evaluate the quality and standards of mathematics throughout the school.

HOMEWORK

Homework in Maths is set in line with the school's Homework Policy.

Reviewed: February 2024

Next Review: February 2026