



Compassion - Courage - Forgiveness – Respect - Thankfulness
Mistley Norman Church of England Primary School and Nursery



Mathematics

Policy



Adopted: Autumn 2021
Review Date: Autumn 2024

Our Christian vision

‘Love one another as I have loved you’ (John 15:12).

This is the Christian foundation for our high expectations for learning, achievement and behaviour for each and every pupil and for the way the school works with families, its parish and whole community.



This policy outlines the leadership, management, teaching, learning and organisation of the mathematics taught and learned at Mistley Norman Church of England School. The implementation of this policy is the responsibility of all staff.

1. Introduction

1.1 It is Mistley Norman Church of England School policy that all pupils enrolled at the school are taught mathematics to a high standard and that we promote learning for life. mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. We want our children to be numerate in order to take a full and active part in the wider world, as well as being numerate enough to stay safe as they grow older.

1.2 We aim to show children that mathematics is an essential element of communication, a powerful tool enabling children to show imagination, initiative and flexibility. Also that mathematics is a medium in which children will have the opportunity to work independently, co-operatively, with confidence and experience opportunities for in-depth studies.

2. Our intent for mathematics

2.1 The main aims of mathematics are those of the National Curriculum.

- Pupils will become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Pupils will reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Pupils will 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.

2.2 Additionally we aim to develop:

- A positive attitude to mathematics.
- An ability to think carefully and logically in mathematics with confidence, independence of thought and flexibility of mind.
- An understanding of mathematics through a process of enquiry and investigation.
- An appreciation of the nature of numbers, algebra, shape, space, measure and statistics, leading to an awareness of the basic structure of mathematics.
- An appreciation of mathematical pattern and the ability to identify relationships.



- Mathematical skills and knowledge accompanied by the quick recall of basic facts.
- An awareness of the uses of mathematics in and beyond the classroom.

3. Our implementation of mathematics

3.1 The mathematics National Curriculum is taught daily throughout the school following the resources and timetable provided by White Rose. Staff have access to the premium resources of this website, as well as Classroom Secrets and Hamilton Trust. This allows staff to choose the right resources for the stage of learning their children are at, while increasing subject knowledge.

3.2 Children are taught mathematics in their classes, with a split to smaller group teaching in Year 5 and 6 as appropriate.

3.3 Through careful assessment, planning and preparation, we aim to ensure that children are given opportunities for:

- practical activities and mathematical games
- problem solving
- individual, small group and whole class discussions
- open and closed tasks
- a range of methods of calculating e.g. mental and formal written methods

3.4 Daily mathematics lessons provide opportunities for children to practise and consolidate their skills and knowledge, to develop and extend their techniques and strategies, and to prepare for their future learning. These are extended and consolidated through weekly homework activities which are always based on the learning completed that week.

3.5 Where children may be identified as falling behind, pre-teaching of a skill, small group work with an adult, 1:1 work with an adult or a timed intervention such as First Class at Number or Success at Arithmetic will be used. This takes place following discussion with the SENCO.

Presentation

3.6 Children work in books with squared paper from Y1. Work is expected to be presented neatly at all times, with objectives and dates underlined, and one digit per box evident. The use of rough paper and/or whiteboards for workings out is discouraged. Instead the child is expected to be able to show the stages s/he has worked through. Work is always completed in pencil.

Resources

3.7 Each class has a selection of everyday equipment available and further equipment is available in the Pythagoras learning hub.

3.8 Further resources to support planning such as White Rose small steps, vocabulary banks and suggested activities are available to all staff and stored on the staff drive. Paper copies can be obtained from the subject lead.



4 Monitoring our impact of mathematics

Marking and feedback

4.1 All written feedback takes place in line with our assessment, marking and feedback policy. Further challenge to extend children who have been successful is expected to be seen, alongside correction of mistakes.

4.2 Teaching and support staff assess throughout lessons, and adaptations (such as additional challenge or further explanation / clarification) take place in the moment.

Informal

4.3 Teachers make ongoing assessments as part of the Primary Framework, which informs future planning.

Formal

4.4 Children undertake the Statutory Assessment Tests in Years 2 and 6. Foundation Stage practitioners follow the current statutory expectations.

4.5 Additionally, children in years 1 to 6 are tested at the start and end of each term using the White Rose materials which comprise of two papers; Test 1 - a calculation test and Test 2 - a reasoning test. Results are used to check and track pupil progress and identify areas to be addressed.

4.6 All teaching staff are expected to hand in their data to the subject lead (start and end of term) and to ensure Pupil Asset is up to date.

Special Educational Needs

4.7 Every teacher must be aware of the needs of the children and take appropriate steps to ensure progress. If a child has a specific learning difficulty in mathematics then that difficulty will be identified and addressed through a One Plan following discussion with the SENCO.

4.8 Where a child has specific learning needs that require specialised equipment to be purchased e.g. a partially sighted child requiring enlarged apparatus, then the equipment will be acquired, in conjunction with the SENCO.

Equal Opportunities

4.9 All children regardless of race, faith, gender, social background, physical disabilities and age have equal access to the mathematics curriculum.

5. Our roles and responsibilities for mathematics

5.1 Our mathematics subject lead is accountable for the strategic development of mathematics - developing and implementing plans, policies and targets and practices within the context of the school and trust's aims, policies and circumstances. Specifically, through directed time and other time:

- To monitor and evaluate the standards of teaching.
- To monitor and evaluate the standards of learning.
- To contribute to whole school self-evaluation.
- To plan and implement improvement plan and work.



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- To review priority/improvement plans and work, at least termly.
- To write and implement policies.
- To write and communicate progression documentation.
- To support and challenge colleagues, including through being active team members of leadership teams and participation in 'deep dive' weeks.
- To be a model of best practice.
- To keep up to date with latest developments in education especially in relation to the subject/phase.
- To report to and/or meet with the Local Schools Board when required.
- To manage the budget for this subject area following best value practice.
- To communicate and work effectively with colleagues.

5.2 Our children are responsible for choosing to work hard, at home, in school or on trips, so that they can learn as well as they possibly can.

5.3 Our Local Schools Board is responsible for supporting and challenging staff so that children receive the best possible education.

Revised Autumn 2021

Non-negotiables mathematics
mathematics Displays/Areas

- *Place value chart /Number line (appropriate to age)/Hundred square to be displayed around the classroom
- *Vocabulary - sentence openers + 'I talk in mathematics' poster
- linked to area of learning
- *Models and images must be displayed to help children access the learning
- *Resources must be clearly labelled and accessible for the children to use to support their learning
- *Question of the week (linked to area of learning) – put up on a Monday for children to think about, discussed on Friday. Must be changed weekly!

Books

- *All mathematics books to well-presented – calculations should be set out clearly with one digit per square. Handwriting must be as neat as in English books - if work has not been done neatly enough it needs to be redone. Diagrams must be drawn with care using a ruler and the guidelines in the book as appropriate.
- *Lesson starters must be completed in books rather than on white boards – if it is important enough to do it is important enough to keep
- *All books to have 'I talk in mathematics' sheet stuck into the front cover
- *Misconceptions/errors to be highlighted/addressed
- *Reversed digits must be corrected and children must make quick progress on not repeating this error. It could, for example, be achieved through personal home learning for a week with an agreed reward in school and at home.



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Planning/Lesson Structure

- *Follow the White Rose framework using Abacus as a support resource
- *Make the learning journey clear (review, teach, practise, apply & review) either over a lesson, a week or a unit
- *Time for pupil discussion and explanation to be planned into every lesson (apart from during assessment lessons)
- *An element of reasoning or application of skills to problem solving should be part of every lesson
- *Where appropriate, physical or visual resources must be made available for children to support their learning
- *Children should be tested on their key number facts such as number bonds, times tables, division facts, equivalent fractions, decimals and percentages, weekly
- *Homework must be sent out weekly with a clear date for completion and return. Children who do not complete the homework must stay in to complete it unless they have a valid reason, e.g. they have been ill, there has been an issue at home. A letter will be sent home for any children who repeatedly do not complete or bring in their homework.