

Cleveland Road Primary School

Mathematics Policy

Revised Spring Term 2025

Signed _____ Chair of Governors

To be reviewed Spring Term 2026

Mathematics Policy

Cleveland Road Primary School

Introduction

This policy serves to outline the teaching, organisation and management of Mathematics at Cleveland Road Primary School. Mathematics is the study of numbers, shapes, and space using reason and usually a special system of symbols and rules for organising them.

The policy has been drawn up by the Mathematics Subject Leader, in consultation with members of the school's teaching staff, and has the full agreement of the Governing Body. The implementation of this policy is the responsibility of all teaching staff, under the direction of their year group leaders. The responsibility for monitoring and reviewing Mathematics teaching and learning rests with the ULT and the Mathematics Subject Leader.

Rationale

Our policy recognises Mathematics as both, a functional tool and an integral way of developing the cultural capital of all of our students, by providing a set of valuable key life skills and enabling them to have the essential knowledge to prepare them for their future. We want all children leaving Cleveland Road Primary School, to be numerate, mathematically literate, to be able to transfer their mathematical skills to other curriculum areas, and apply their learning into everyday life.

We want to impart to our children that Mathematics is not confined to just acquiring mathematical skills, but is most importantly about adopting an inquiring approach, being curious and approaching problems with enthusiasm and resilience. Our ultimate aim is to support in the development of a child's idea of self, whilst promoting skills to support their mental health and wellbeing.

All pupils are entitled to access the Mathematics curriculum at a level appropriate to their needs arising from race, gender, ability or disability, and all Mathematics lesson plans will therefore be differentiated to meet the needs of the children in each class.

INTENT

Through our teaching of Mathematics, we aim to:

- Ensure a broad, balanced, creative and stimulating mathematical curriculum in line with current national curriculum guidance
- Present Mathematics in meaningful contexts, link to the real world, and to embed a range of practical activities designed to enhance children's mathematical experiences
- Ensure continuity and progression in children's learning as they progress through Cleveland through reference to the progression document for Mathematics
- Instil in children, a positive and confident attitude towards Mathematics, where independence and reasoned risk-taking are nurtured
- Equip children with practical mathematical life skills and knowledge needed to function outside of school through to their adult lives
- Highlight appropriate cross-curricular links
- Involve our parents in their children's mathematical learning both in school and at home

- Encourage children to approach Mathematics creatively

These aims enable our children to:

- Use a range of calculation strategies to solve real life problems competently and confidently
- Recall number facts using a range of mental strategies to aid calculations rapidly and accurately
- Gain a secure understanding of a wide range of mathematical vocabulary and use this to explain their reasoning and understanding
- Have concrete number sense as well as the ability to reason with numbers, identifying when answers are sensible
- Have a secure understanding of Shape, Space, Measures and Data Handling and the ability to apply concepts and skills in a cross-curricular way and in everyday life
- Understand that making a mistake is a learning opportunity

IMPLEMENTATION

Curriculum

Within Early Years, the curriculum is broken down into 3 main strands, which align with the statements from Development Matters 2022 to support achievement of the Early Learning Goals:

- Number
- Numerical Patterns
- Geometry – shape and spatial reasoning
- Measurement

Throughout Key Stage 1 and 2, the curriculum is further broken down into the following strands, according to the National Curriculum:

- Number: Number and Place Value; Addition and Subtraction; Multiplication and Division; Fractions
- Measurement
- Geometry: Properties of Shapes; Position and Direction
- Statistics (From Year 2 onwards)

In Year 6, the following strands are explicitly taught, in addition to the strands listed above:

- Ratio and Proportion
- Algebra

When Planning Mathematics, we:

- Ensure that lessons meet targets from the National Mathematics Curriculum. We do this by making reference to our curriculum map, which is designed to ensure children are consistently being exposed to the areas of Maths that year group needs to meet

- Review, adapt and adjust the current daily lessons with carefully planned activities to meet children's learning needs (in class or set). Plans may be devised as a year group (then tailored to a class/ set), or by individual class/set teachers
- Ensure that a typical maths lesson in Cleveland Road Primary School lasts for 60 minutes, though this may be increased slightly depending on a year group's needs
- Plan adequate time for children to practise independently, the skills taught/revised in the main teaching part of the lesson.
- Enable children to practise and expand their mental maths in a way that is relevant to and engaging for all abilities in the class
- Tailor the curriculum to pupils' needs, including pupils working below the expected level, EAL and SEN, which enables them to make accelerated progress towards the age-related expectations
- Develop Maths intervention programmes in order to raise achievement
- Ensure that Gifted and Talented children are challenged through investigative activities, independent/paired problem solving, the provision of challenges, work with differentiated outcomes, devising questions/problems for the class to solve and intervention groups where possible

Teaching and Learning

Early Years and Foundation Stage

Nursery and Reception follow the learning outlined in Development Matters 2022. These offer experiences that will help develop the skills and concepts of mathematics leading to children meeting the Early Learning Goals. The scheme of work ensures that mathematics is taught in its own right and within the wider curriculum and gives emphasis to the acquisition of mathematical language to support the development and application of mathematical concepts. Children are also given the opportunity to develop problem solving and numeracy skills.

Key Stage 1 and Key Stage 2

Children in Year 1, Year 2, Year 3 and Year 4 are taught in their mixed ability classes. Whilst children in Year 5 and 6 are placed in Maths sets, allowing teachers to adapt learning to support accelerated progress. The structure of groupings is flexible throughout the year, depending on the cohort.

Across the school, we follow an approach that enables exploration and understanding that encourages children to know more, remember more and do more; thus promoting long term learning. This approach ensures that **problem solving** is key to ensure that we are supporting all of our children at the highest level. Furthermore, this enables children to build a strong understanding of the fundamentals of maths and develop fluency in line with speed. Lessons reflect real-life situations, which demonstrates the use and purpose of their learning. This encourages children to apply the skills they have learnt in the past and develop learning via making connections. The children are also encouraged to check their own learning and understanding as well as challenge themselves by asking questions and making links.

The approach looks at 3 key areas (CPA):

- Concrete – hands on using resources
- Pictorial – using images and diagrams
- Abstract – the use of symbols and numbers

The CPA approach ensures that all key areas of understanding Maths are addressed.

Each lesson is based on the following:

1. Mental/oral Math rehearsal
2. Introduction of the basic idea/ concept
3. Link to opportunities for application in real world
4. Fluency (with differentiated questions)
5. Reasoning: applying skills and problem solving

Each area in Maths is taught with high expectations of pupils, which enables children to recall previous learning, make links across the Maths curriculum as well as the wider curriculum. This is then scaffolded to support all learners to engage with the learning and meet the learning aim and targets.

The learning aim is displayed in each lesson and is used as a title in exercise books. The Steps to Success are clearly specified, or, where appropriate, developed by the children. Relevant vocabulary is displayed and understanding is developed through discussion: whole class, pair or group talk. Throughout the school and across all abilities, physical resources, visual aids, models and images are used to support teaching and learning (CPA approach). Cleveland Road Primary School embraces ICT and the wider curriculum as an effective teaching tool to aid children's learning, progress and in raising attainment in Mathematics.

The teaching of Mathematics at Cleveland Road Primary School consists of:

- Whole class directed teaching where the outcome is differentiated by questioning, work, support given and use of resources
- Focus group teaching for target children
- Peer teaching/evaluation and use of talk partners
- Individual work
- Paired work
- Group work
- Cross-curricular links (with current or previous teaching)

When teaching, all teachers make reference to and have familiarised themselves with the Calculation Policy used at Cleveland Road Primary School. This policy outlines structured and progressive calculation methods, taking the learner from informal to formal written methods. The implementation of these guidelines is the responsibility of all teachers at Cleveland.

IMPACT

As with all our subject teaching, we do not teach Maths in isolation to other curriculum areas, we relate the work undertaken to real life situations and we also aim to:

- Improve pupils' skills across all areas of the curriculum such as: English, Science, History, Geography and Computing
- Develop pupils' critical thinking and ability to analyse
- Promote pupils' awareness and understanding of gender, cultural, spiritual and moral issues
- Develop pupils as active and responsible citizens

Assessment

The use of formative and summative assessment is an integral part of teaching and learning at Cleveland Road Primary School.

Teachers use formative assessment to monitor children's learning throughout the lesson against learning aims and steps to success. This informal assessment notifies the teachers of the next step in their planning to address learning needs and misconceptions within the lesson. Feedback is also given in children's books to help consolidate learning. Children are encouraged to evaluate their own work and others' work to engage them in making judgements about the stages of their learning and consequently empowering them to become skilled reflective learners and critical thinkers.

Formative assessment is recorded in children's books, on plans through teachers' annotations and in their pupils' attainment profiles (target tracker) along with on-going summative assessment. Assessment information is shared with parents at termly parents' evenings, along with targets that link with arithmetic and reasoning. Children are encouraged to set their own targets, based on their needs, alongside the teacher and are provided with opportunities to meet their targets during maths lessons.

At the end of each year, parents receive a written report detailing their child's progress & attainment in Mathematics alongside a target for the children to work on.

Data analysis of pupils' test results and teacher assessments is intrinsic to identifying target children for intervention. These include the under-achievers and those making less progress than expected. Based on data analysis and Pupil Progress Meetings, there are intervention programmes in place to raise achievement of target children.

Schools in England are also required to administer an online multiplication tables check (MTC) to Year 4 pupils. The purpose of the test is to determine whether pupils can recall their times tables fluently, which is essential for future success in mathematics.

Children's work

Children must do their work, including calculations, in pencil in their maths books. The Learning Aim and short date must be shown for each piece of work. Children are to be encouraged to write one digit for every square in their books. Children's books are regularly monitored by the Leadership Team, Year Group Leaders, the Maths subject leader and staff during staff meetings.

Maths Areas

Maths displays are to be placed in a prominent location in every classroom. These displays should include:

- Children's work as a form of celebration and a method to recall
- Interactive activities i.e. questions and calculations
- Resources children use to solve problems i.e. 100 square, times tables, number lines etc.
- Link to real world including potential careers i.e. mantra, images of how maths has been applied
- Key mathematical vocabulary to support progression

The Maths Subject Leader will:

- Work closely with colleagues, offering guidance and support, as well as providing leadership and direction in mathematics through Insets/CPD
- Monitor and evaluate the quality of teaching and learning of Mathematics through lesson observations, scrutiny of lessons and planning, and of children's books
- Ensure the Math's Action Plan is implemented, monitored, evaluated and reviewed in line with school development
- Ensure consistency in the teaching of Mathematics across the whole school

Monitoring, Evaluation and Review

This policy is monitored through:

- Regular scrutiny of children's books
- Regular monitoring of teaching plans
- Evaluation and review of assessment data
- Lesson observations to monitor the quality of teaching and learning
- Pupil voice interviews

Equal Opportunities and Special Needs (including Gifted and Talented)

In line with our *Equal Opportunities Policy*, we are committed to providing a teaching environment conducive to learning, where each child is and feels valued, respected and challenged, regardless of race, gender, religion, social background, culture or disability. This can be achieved through classroom organisation and careful planning that enables the active participation of all pupils. Some pupils may need provision to be made for additional support, modified resources or tasks. This is also transferred to individual education plans (IEPs), where targets are provided to support bridge and close gaps in learning within the fundamentals of Maths. Furthermore, equal learning opportunities are provided for all children, as teachers pitch at a level that is high, and attainable, and scaffold to support others, so all are learning the same aims. This is done by:

- Setting tasks that are open-ended and can have a variety of results (targeting Gifted and Talented children)
- Setting tasks of increasing difficulty where children feel they have learnt something new and have made progress (targeting Gifted and Talented children)
- Whole class discussions to support all access and here modelled examples (targeting all children)
- Grouping children by ability and setting different tasks for each group, as and when appropriate, but otherwise arranging pupils into mixed ability groups with more able pupils supporting SEND and EAL pupils to access tasks
- Using additional adults to support the work of individual children or small groups, especially SEN and EAL pupils to meet specific targets that will help them meet the aim of the lesson being taught
- Modifying or providing additional resources that can be used to support a child's access to the curriculum
- Adult/s to support SEND children with fine motor skill needs

The UNICEF Rights Respecting School Framework

We are proud to be working within the UNICEF Rights Respecting School framework. Ensuring that children understand their rights and responsibilities as per the United Nations Convention of the Rights of the Child is central to our school's ethos. Where learning opportunities and links exist, relevant articles from the United Nations Convention of the Rights of the Child are made explicit through the teaching of the curriculum.

Policy Reviewed: Spring term 2025

Date of next review: Spring term 2026