ELSTON HALL
Learning Trust

Teaching for Mastery Mathematics Policy

Updated: October 2025

Approved by Executive Leaders:

Review date: October 2026

Mathematics Rationale

Overarching Vision

Our aim across Elston Hall Learning Trust (EHLT) is for all children to enjoy mathematics and have a secure and deep understanding of fundamental mathematical concepts and procedures when they leave us to go to secondary school. We want children to see the mathematics that surrounds them every day and enjoy developing vital life skills in this subject.

Intent

Our Mathematics curriculum is designed with the intent that all children will become competent mathematicians, equipped with the automaticity and the maths skills required to thrive in later life. We foster positive 'can do' attitudes and believe that all children can achieve in mathematics. It is our aim for children to become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. We intend for children to be able to solve problems by applying their mathematics to a variety of problems with increasing sophistication. It is our goal that all children will be able to reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.

Aims for our pupils

- To develop a growth mindset and positive attitude towards mathematics.
- To become confident and proficient with number, including fluency with mental calculation and look for connections between numbers.
- To become problem solvers, who can reason, think logically, work systematically and apply their knowledge of mathematics.
- To develop their use of mathematical language.
- To become independent learners and to work co-operatively with others.
- To appreciate real life contexts to learning in mathematics.

10 Classroom Norms to Establish

Our ethos in mathematics across the school is underpinned through 10 classroom statements we aim to ensure all learners are aware of. These values are important in allowing all children to feel valued and enjoy their maths learning by developing a positive mindset.

1. Everyone can learn mathematics to the highest levels.
2. If you 'can't do it', you 'can't do it yet'.
3. Mistakes are valuable.
4. Questions are important.
5. Mathematics is about creativity and problem solving.
6. Mathematics is about making connections and communicating what we think.
7. Depth is much more important than speed.
8. Mathematics lessons are about learning, not performing.
9. Subitising is crucial – don't count, see the amount.
10. The answer is only the beginning.

Implementation

Our curriculum follows the NCETM Teaching for Mastery approach and Mastering Number programme, which we have aligned to the National Curriculum. Based on effective research, the mastery approach plans for small steps which allows children to make connections in their thinking in order to build a deeper understanding. Our maths curriculum sequence is cumulative and allows for consolidation of learning to ensure children make connections and draw upon prior learning ensuring it is progressive throughout school. We offer an ambitious curriculum that provides children with the skills and knowledge to become confident mathematicians. Language development is an essential part in all our maths lessons, and by using precise mathematical vocabulary and stem sentences, this offers the children a scaffold to develop and articulate their mathematical thinking. Great importance is placed upon mathematics as it is an area of knowledge that children will require throughout their lives.

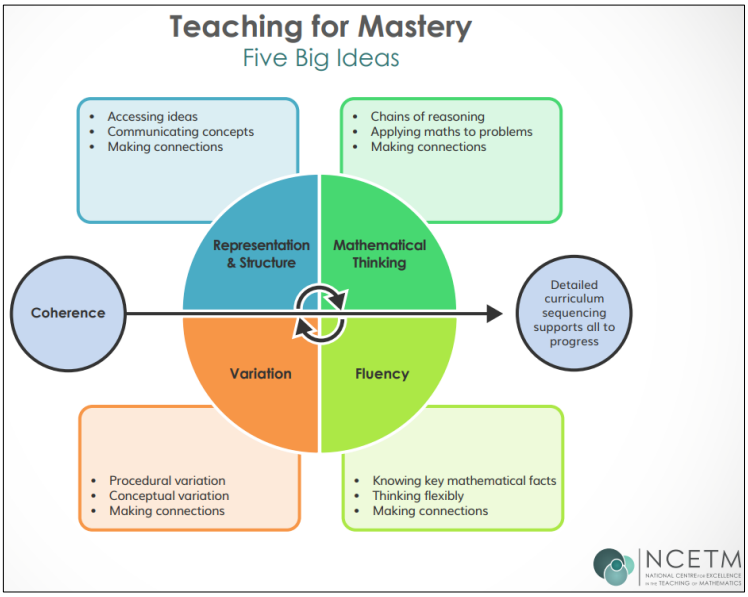
EHLT adopted a mastery approach to the teaching and learning of mathematics in 2023 across two year groups. The rationale behind adopting our approach to teaching mathematics lay within the NCETM Maths Hub Programme as well as the 2014 National Curriculum, which states:

• The expectation is that most pupils will move through the programmes of study at broadly the same pace.
• Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems.
• Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Five Big Ideas: Teaching for Mastery

The three key aims of the National Curriculum should be addressed in each sequence of learning.

- Fluency
- Reasoning
- Problem Solving



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.

Teaching for Mastery Principles

A little progress each day adds up to BIG results.

• It is achievable for all – we have high expectations and encourage a positive 'can do' mindset towards mathematics in all pupils, creating learning experiences which develop children's resilience in the face of a challenge and carefully scaffolding learning so everyone can make progress.
• Deep and sustainable learning – lessons are designed with careful small steps, questions and tasks in place to ensure the learning is not superficial.
• The ability to build on something that has already been sufficiently mastered – pupils' learning of concepts is seen a continuum across the school.
• The ability to reason about a concept and make connections – pupils are encouraged to make connections and spot patterns between different concepts (E.g. the link between ratio, division and fractions) and use precise mathematical language, which frees up working memory and deepens conceptual understanding.
• Conceptual and procedural fluency – teachers move mathematics from one context to another (using objects, pictorial representations, equations and word problems). There are high expectations for pupils to learn times tables, key number facts (so they are automatic) and have a true sense of number. Pupils are also encouraged to think whether their method for tackling a given calculation or problem is Appropriate, Reliable and Efficient.
• Problem solving is central – this develops pupils' understanding of why something works so that they truly have an appreciation of what they are doing rather than just learning to repeat routines without grasping what is happening.
• Challenge through greater depth - rather than accelerated content, (moving onto next year's concepts) teachers set tasks to deepen knowledge and improve reasoning skills within the objectives of their year group.

Curriculum design and planning

• Mathematics lessons begin with a Focus Five Starter providing daily opportunities for children to practise and revisit prior learning and further embed their knowledge and understanding.
• Staff use NCETM Maths Mastery documents as a starting point to develop a coherent and comprehensive conceptual pathway through the mathematics. The focus is on the whole class progressing together. Collaborative planning with year group colleagues is encouraged to ensure consistency and across the Trust.
• Learning is broken down into small, connected steps, building from what pupils already know. The lesson journey should be detailed and evident on electronic presentations (Smart Notebook or PowerPoint) as there is no requirement for teachers to produce detailed paper plans.
• Difficult points and potential misconceptions are identified in advance and strategies to address them planned.
• Key questions are planned, to challenge thinking and develop learning for all pupils.
• Contexts and representations are carefully chosen to develop reasoning skills and to help pupils link concrete ideas to abstract mathematical concepts.
• The use of high quality NCETM Mastery materials and tasks to support learning and provide access to the mathematics, is integrated into lessons.
• Opportunities for extra fluency practice (instant recall of key facts, such as number bonds, times tables, division facts, addition and subtraction facts) should be provided outside mathematics lessons (morning starters or post lunch).

Lesson Structure EYFS

1. Retrieval (Spring Term onwards) – the lesson starts with a review and practice of something that the children looked at in the last lesson. Also, children will have the opportunity to recall prior learning during planned child-initiated activities.
2. Teach (Mastering Number) – teaching and group discussion to draw attention of the maths using the NCETM Mastering Number materials.
3. Teach and Independent – most lessons, where appropriate, children are split into two groups. Half stay on the carpet and deepen their learning with the teacher, and the other group using the learning environment (indoors/outdoors) to complete an independent task that links to the teaching.
4. Recall – During day-to-day child-initiated activities, children will be exposed to maths concepts they have been introduced to. Also, staff will facilitate discussion to draw out mathematical thinking.

Lesson Structure KS1 and KS2

1. Focus 5 – Each lesson begins with a walk into learning opportunity with a mixture of questions on previously taught concepts.
2. Teach – teachers use the 'ping pong' approach to teach each small step explicitly using NCETM materials. Teachers may introduce stem sentences for children to be able to explain their learning. Children are given the opportunity to practise using the: **I do, we do, you do** format.
3. Collaborative – pupils will practise and embed their learning through working alongside 'shoulder partners' during collaborative learning.
4. Independent – Children will apply what they have been taught in an independent activity. All children will begin from the same starting point with lessons designed to be low threshold, high ceiling so it is accessible for all. (Some adaptations will be made where necessary including SEND.)
5. Assessment – Teachers will assess learning using live marking for instant feedback and to act upon it within the lesson. Children will assess their own learning using RAG rating.

Mastering Number

In addition to Teaching for Mastery maths lessons, Mastering Number is used to strengthen pupils' fluency and confidence with number facts and mental calculation. The programme is designed to ensure that all children develop a strong foundation in number sense, enabling them to recall and apply key facts efficiently and accurately.

In Reception to Year 2, pupils take part in four short sessions per week, each lasting 10–15 minutes, focusing on deepening their understanding of number relationships and developing flexibility in mental strategies.

In Years 3 to 5, pupils continue with five 10–15-minute sessions per week, allowing them to build on their prior learning and further embed core number knowledge.

This consistent and progressive approach supports children in becoming confident, fluent mathematicians, capable of reasoning and problem-solving with greater accuracy and efficiency.

Arithmetic

At EHLT, arithmetic is given great importance and will allow children to continually practise written methods on the four rules (including fractions, decimals and percentages) which are at the heart of mathematics. One lesson each week is devoted to learning and practising a skill with a short quiz given to allow children opportunity to apply it. Each week, quizzes will build on the weeks prior for children to revisit taught skills and deepen understanding. Completed quizzes will be sent home so parents can monitor how their child is progressing.

Multiplication Tables

Multiplication tables are of great importance at EHLT and learners' progress is valued and celebrated. The Superhero Times Tables scheme has been carefully developed for pupils in Years 2-6, with learners taking part in individual challenges against the clock progressing through the times tables system and improving their speed and accuracy. This is built alongside quality teaching following the carefully developed Times Table Overview, ensuring progression throughout the key stages. Times Tables Rockstars also allows learners regular practice in a safe but individually competitive environment and are provided with a TTRS log-in giving them the opportunity to practise online outside of the classroom.

Impact

Learners will make progress over time, from Early Years to the end of Key Stage 2, achieving Age Related Expectations. Clear, progressive calculation policies and planning systems including monitoring will enable teachers to organise and deliver high quality lessons ensuring all pupils can have the opportunities to achieve in all areas of mathematics. During the learning process, learners will develop their independence and realise the value of mistakes in the learning process showing perseverance to overcome more complex mathematical challenges and succeed. Learners will develop and embed a range of number calculations including fractions, decimals and percentages enabling them to use formal written methods accurately as well as developing their mental strategies. They will be able to use these skills in everyday life situations resulting in learners becoming confident, fluent young mathematicians equipped with the skills to answer a range of mathematical questions and set them on the right path to continue their mathematical journey into secondary school and beyond.

Assessment

Within Lessons

Staff use daily assessment to identify pupils who may require 'Fast response' intervention if required to ensure pupils 'keep up'. In addition, staff use both formative and summative assessments to identify pupils who would benefit from participation in weekly intervention groups to develop their knowledge and understanding of concepts and therefore, improve the progress they make in mathematics.

We believe that all children should be provided with the equal opportunity to access the same level of work. Therefore, the majority of pupils are exposed to the age-appropriate learning, but adaptations are put in place for those pupils who require additional support. Staff continually assess pupils' progress throughout the lesson and quickly identify when pupils are ready to move on in their learning. Staff strive to challenge pupils and deepen their understanding through the application of their mathematical knowledge and understanding in different contexts, including open-ended questions, problem solving and reasoning tasks.

Arithmetic

At the beginning of each term, pupils in Key Stage 2 will perform a short baseline arithmetic assessment to track their attainment and progress with the four rules of number (alongside fractions, decimals and percentages according to AREs) in mathematics. Each pupil will complete the assessment at the beginning of the year (September) for teachers to baseline their class's arithmetic understanding. Following this, pupils will repeat the assessment at the end of each term, which will allow teachers to chart their progress.

Teaching for Mastery

Formative assessments are carried out by the class teacher by identifying each child's progress in each lesson, giving instant feedback through live marking.
Summative assessments are given to pupils each term focusing on concepts taught across lessons in that term. EHLT has created bespoke assessments for Year 1 – 5 based on the Department for Education (DfE) Mathematics guidance key stages 1 and 2 along with NCETM Teaching for Mastery materials used and taught in lessons.

Statutory Assessments

Statutory assessments are carried out the end of key stage 2 through SATs.
In addition, the Multiplication check (MTC) is carried out at the end of Year 4.