



The Three Saints Academy Trust

Maths Policy

Policy Date: **September 2026**

Review Date: **September 2028**

‘Children’s chances of success are maximised if they develop deep and lasting understanding of mathematical procedures and concepts’

NCETM 2022

Aims

At The Three Saints Academy Trust, we believe every child can succeed in mathematics. We aim to develop confident, curious and resilient mathematicians who understand concepts deeply, use precise mathematical language and apply their learning in different situations. The three National Curriculum aims—fluency, reasoning and problem solving—are interdependent, of equal importance and taught in an integrated way.

- Develop automaticity in foundational knowledge so every pupil can access the wider curriculum.
- Provide an ambitious mastery curriculum for all pupils.
- Promote mathematical curiosity, purposeful talk, correct and consistent vocabulary, and positive attitudes.
- Build a progressive sequence of concepts and skills, revisiting and connecting learning over time.
- Develop awareness of mathematics across the curriculum and in the wider community.

‘Think, talk and observe like a mathematician’

Intent:

At The Three Saints Academy Trust, we believe every child can become a successful mathematician. Our curriculum develops pupils who are fluent, confident, curious and resilient, able to use mathematics to reason, solve problems and make connections.

We use Ark Curriculum Plus Mathematics Mastery Primary (MMP) as the foundation of our mathematics curriculum. MMP provides a carefully sequenced curriculum that develops conceptual understanding, mathematical thinking, fluency and problem solving, aligned with the National Curriculum.

Our approach is informed by the NCETM Five Big Ideas in Teaching for Mastery:

Coherence; Representation and Structure; Mathematical Thinking; Fluency; and Variation.

These principles are interconnected and underpin teaching, curriculum design and professional development. Our ambition is that pupils know more, remember more and can use their mathematical knowledge in increasingly unfamiliar situations.

Implementation:

Mathematics is taught daily from Reception to Year 6. The National Curriculum provides the statutory entitlement in Key Stages 1 and 2, while MMP provides the sequence and resources that support its delivery.

The curriculum develops progressively through number and place value; addition and subtraction; multiplication and division; fractions, decimals and percentages; ratio and proportion; geometry; measurement; statistics; and algebra/mathematical relationships where appropriate.

Important ideas are revisited, connected and developed over time rather than taught as isolated topics. Teachers understand the mathematical journey within and across year groups and adapt teaching responsively while maintaining curriculum coherence.

Teaching for Mastery

All pupils have access to the same ambitious mathematics curriculum. We do not routinely separate pupils by attainment or provide different mathematical content. Instead, teachers adapt representations, scaffolding, questioning, examples, numbers and support. Pupils who are secure deepen their understanding through reasoning, connections, generalisation and variation; pupils who need support receive additional modelling, representation, guided practice and rehearsal of prerequisite knowledge.

Concrete, Pictorial and Abstract

Concrete resources, pictorial representations and abstract notation are deliberately selected to expose mathematical structure and relationships. Examples include manipulatives, part-whole models, bar models, number lines, arrays, place-value representations, diagrams, equations and symbolic representations. Teachers explicitly connect representations, so pupils develop increasingly sophisticated mental images.

Mathematics Classrooms:

MMP provides a consistent lesson structure: Do Now; New Learning; Talk Task/Let's Explore; Develop Learning; Independent Task; and Plenary. This provides consistency but is not a rigid formula: teachers adjust the balance and sequence in response to assessment and the mathematical purpose of the lesson.

Lessons develop three interconnected dimensions of depth: conceptual understanding, language and communication, and mathematical thinking. Teachers model precise mathematical language and provide opportunities for pupils to rehearse and articulate their ideas using sentence stems and appropriate vocabulary.

Our shared Three Saints approach is expressed through **TEACH • TALK • THINK**.

TEACH: model concepts explicitly, connect prior and new knowledge, choose numbers deliberately and use representations that reveal structure.

TALK: teach precise vocabulary, use stem sentences and choral rehearsal, and create purposeful partner dialogue.

THINK: give pupils opportunities to notice patterns, explore examples and non-examples, identify misconceptions, justify, reason and generalise. These are mutually reinforcing features of effective mathematics teaching, not separate lesson activities.

Each classroom should have a Mathematics Working Wall that develops alongside the unit and reflects key vocabulary, representations, models and connections. Pupils should have access to a range of resources that support mathematical thinking.

A typical week may include:

- Five mathematics lessons.
- Mastering Number sessions in EYFS, Key Stage 1 and Key Stage 2.
- Journey to Automaticity / basic facts practice.
- Same-day “Keep Up” intervention and planned “Catch Up” intervention.
- Pre-teaching
- Multiplication programme (Micro Teaching)

WE WANT TO SEE	TEACHERS ASK THEMSELVES
TEACH • Coherence	Does today's learning build on what pupils already know?
TEACH • Representation & Structure	Does the representation expose the mathematics and help pupils see relationships?
THINK • Mathematical Thinking	Are pupils noticing, explaining, reasoning, conjecturing or generalising?
THINK • Fluency	Are pupils developing secure, accurate and increasingly automatic knowledge?
THINK • Variation	Have examples been chosen to highlight what changes and what stays the same?
TALK • Mathematical Talk	Are pupils using precise vocabulary to explain and respond to mathematical ideas?
ASSESS • Responsive teaching	Do questioning and observation reveal what pupils understand and what they need next?
INCLUDE • Access for all	Can every pupil access the same mathematical idea with appropriate scaffolding?
THINK • Depth	Are pupils deepening understanding rather than simply moving on to harder content?
CONNECT • Prior and new learning	Are pupils encouraged to use what is known to work out what is not yet known?

Inclusion and SEND

All pupils should experience a rich and ambitious mathematics curriculum. We use high expectations with appropriate support rather than reducing mathematical ambition. Access is supported through careful sequencing, explicit modelling, concrete and pictorial representations, retrieval, precise vocabulary, structured talk, sentence stems, carefully chosen examples, guided practice and targeted intervention.

Intervention complements rather than replaces high-quality classroom teaching. Teachers work with the SENCO and other professionals where appropriate to identify barriers and select effective adaptations.

Calculation, Vocabulary and Oracy

The school follows the calculation progression within MMP and associated school guidance. Written methods are introduced when pupils have sufficient conceptual understanding and prerequisite knowledge. Teachers connect Concrete → Pictorial → Abstract and ensure pupils understand why methods work, not simply how to perform them.

Mathematical language is explicitly taught and modelled. Pupils are expected to explain, justify, compare and challenge using accurate vocabulary. Talk is a tool for mathematical thinking: pupils are regularly given opportunities to think, talk, represent and explain.

Our shared mathematical language

Teachers consistently model and expect precise language. Pupils should increasingly use complete mathematical explanations and appropriate sentence stems. Examples include:

- "If I know ... then I know ..."
- "I know this because ..."
- "I notice ..." / "I wonder ..."
- "These are connected because ..."
- "The same/different structure is ..."

Curriculum Leadership and Professional Development

The mathematics subject leader is responsible for strategic development, curriculum progression, monitoring, assessment, resources and professional development. CPD develops both mathematical subject knowledge and pedagogical understanding.

Professional reflection focuses on four questions: What do I want pupils to understand?

What structure do I want them to see? What connections do I want them to make? How will I know they understand?

Monitoring and Review

Impact is evaluated through pupil voice, lesson visits, book looks, planning and curriculum review, assessment information and discussions with teachers and pupils. Monitoring focuses on the quality of mathematical learning rather than compliance with a particular lesson format.

Our Non-Negotiable Principles

Pupils are encouraged to see themselves as mathematicians: they represent, connect, think, explain and generalise. Success is not defined only by getting an answer quickly; pupils should increasingly explain why an answer works and recognise when a mathematical relationship can be used again.

- Every pupil is entitled to ambitious, age-appropriate mathematics.
- Conceptual understanding, fluency, reasoning and problem solving are developed together.
- Representations are selected deliberately to expose mathematical structure.
- Teachers use assessment for learning to respond to pupils' thinking.
- Mathematical vocabulary and purposeful talk are integral to lessons.
- Misconceptions are explored to develop understanding.
- Variation and connections are used to deepen learning.
- Intervention supports access to the curriculum rather than replacing high-quality teaching.

EYFS:

Mathematics in the Early Years Foundation Stage (EYFS), including Nursery, provides the foundations for all future mathematical learning. In line with the EYFS Statutory Framework, Development Matters and the NCETM's guidance, we aim to develop children's curiosity, confidence and positive attitudes towards mathematics through a carefully planned, engaging and inclusive curriculum. In Nursery, mathematical understanding is developed through purposeful play, exploration, everyday routines, stories, songs, games and high-quality interactions with knowledgeable adults. Practitioners model precise mathematical vocabulary, ask thoughtful questions and encourage children to notice, describe and explain what they see. Children are provided with frequent opportunities to count, compare, recognise patterns, explore shape and space, and investigate measures using concrete objects and familiar experiences. These experiences build on children's prior knowledge and support their developing mathematical language, reasoning and understanding.

Our EYFS mathematics curriculum is informed by the NCETM's six key areas of early mathematical learning: **cardinality and counting, comparison, composition, pattern, shape and space, and measures**. These interconnected areas are developed progressively through Nursery and Reception, providing children with secure foundations in number and spatial reasoning. In Reception, the NCETM's *Mastering Number* programme supports the development of strong number sense, including subitising, understanding how numbers are composed and decomposed, recognising relationships between numbers, and developing fluency and flexibility with numbers within 10. Carefully selected representations and manipulatives help children make sense of mathematical structures and explain their thinking. Through explicit teaching, continuous provision, adult modelling and opportunities to revisit and apply learning, we ensure that all children, including those who may need additional support, develop the knowledge, vocabulary and confidence needed to make a successful transition into Year 1.

Key References:

- Department for Education – National Curriculum in England: Mathematics Programmes of Study
- NCETM – Five Big Ideas in Teaching for Mastery
- NCETM – Primary Mastery Professional Development Materials
- Ark Curriculum Plus – Mathematics Mastery Primary
- Education Endowment Foundation – Mathematics Mastery Primary
- EYFS Statutory Framework
- Development Matters

During the Foundation Stage the children develop their number sense and focus on the 6 key learning areas for mathematics: Cardinality and Counting, Comparison, Composition, Pattern, Shape and Space, and Measure.

“Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, ‘have a go’, talk to adults and peers about what they notice and not be afraid to make mistakes.”

Statutory Framework for the Early Years Foundation Stage