

Mathematics Policy

St Matthew's Catholic Primary School



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Review Date

Vision and Aims

At St Matthew's, mathematics helps children make sense of the world, solve problems and communicate their ideas with confidence. Rooted in our Catholic mission, we want every child to feel valued as a mathematician, enjoy challenge and recognise that effort, discussion and mistakes are part of learning. We maintain high expectations for all pupils, including those with SEND, pupils learning English and those facing disadvantage.

Progression in Mathematics

By the end of Year 6, pupils should have secure foundations in number, calculate fluently, reason using accurate mathematical language and apply their knowledge to unfamiliar problems. Our curriculum follows the Early Years Foundation Stage (EYFS) statutory framework in Reception and the National Curriculum for England in Years 1 to 6, with particular attention to fluency, reasoning and problem solving. A central aim is for children to develop understanding through concrete, pictorial and abstract representations: they handle and organise objects, interpret and draw images, and connect these to numerals, symbols and equations. As their understanding grows, pupils use more efficient abstract methods, while returning to practical or pictorial models whenever these help them explain or deepen a concept.

The journey begins in Reception with children experiencing number through play, stories, routines and carefully planned adult-led teaching. They learn to count objects accurately, understand that the last number counted tells how many there are, subitise small quantities, compare sets and see how numbers are composed and recomposed. They explore patterns, shape and space, and describe what they notice using mathematical language. Objects, fingers, ten frames, number tracks and images help children connect a quantity to its numeral and to explain their thinking. Adults revisit these ideas frequently so children develop secure, flexible understanding rather than relying on counting by rote.

Year 1 teaching builds directly on this knowledge. Children extend counting and comparison, use the structure of ten to understand teen numbers as a ten and some ones, and move from practical stories to part-whole models and equations. Subitising and composition of numbers within ten support number bonds and addition and subtraction within 20; children learn to count on and back, bridge through ten and explain the relationship between the operations. They also apply number in measures, money, time and shape. In Year 2, pupils deepen place value through tens and ones to 100, use known facts to calculate with larger numbers, and develop multiplication and division through equal groups, arrays and sharing. Teachers revisit Reception foundations when needed, while extending pupils towards efficient strategies, reasoning and multi-step problems. This planned progression gives children a clear bridge from the EYFS to the Key Stage 1 National Curriculum.

Curriculum Design and Planning

Mathematics is planned using Oak National Academy's curriculum as a spine. Oak's primary mathematics sequence is aligned with the National Curriculum for England and informed by NCETM curriculum prioritisation and ready-to-progress guidance. Teachers adapt the sequence and resources substantially to meet the needs of St Matthew's pupils. Oak lessons, slides and tasks are selected, reordered, supplemented or replaced where assessment shows that a different example, representation, pace or amount of practice is needed. In St Matthew's, we understand the importance of using the concrete, pictorial and abstract progression within mathematics. Only when children have a full understanding of the concrete and pictorial understanding, do we progress onto the abstract form of mathematics. Planning is carefully reviewed to ensure that concrete and pictorial representations are moved away too quickly to ensure a deep understanding of the learning.

Teachers remain responsible for the mathematics taught and for ensuring full curriculum coverage. Class teachers liaise regularly with the mathematics subject leader about curriculum coverage, assessment, misconceptions and the adaptations pupils need. These discussions inform whole-school planning, agreed priorities and next steps for teaching. The subject leader provides practical support and guidance with sequencing, representations, resources and lesson design, including coaching or team teaching where useful.

Subject progression identifies the key knowledge, methods, representations and vocabulary that build from Reception to Year 6.

EYFS and Key Stage 1

In Reception and Key Stage 1, children secure counting, number composition, place value, addition and subtraction before applying them to measures, shape and simple problems.

Key Stage 1

In Key Stage 2, pupils extend place value and the four operations, develop understanding of fractions, decimals and percentages, and connect these to measures, geometry, statistics, ratio and algebra as appropriate to their year group. Teachers revisit prerequisite knowledge deliberately: for example, part-whole relationships and bonds to ten support bridging ten; equal groups and arrays support multiplication, division and later fractions. Working walls show current models, mathematical vocabulary, actions and sentence stems that children can use independently

Strong foundations in Mathematics

In Reception, children develop early number understanding through purposeful play, adult interaction, practical exploration and short, focused teaching. They count, subitise, compare quantities, explore composition and notice patterns using objects, images and stories. These foundations continue throughout school through carefully sequenced teaching and frequent practice. Children move between real objects, ten frames, bead strings, number tracks and numerals so that they recognise the same quantity in different forms, rather than memorising a procedure alone.

Adults model clear mathematical speech and give children time to explain what they notice. Counting aloud, choral responses, talk partners and sentence stems support early oracy. Numerals are explicitly modelled and children practise forming and recording them clearly; recording demands are adapted so handwriting does not prevent a child from showing mathematical understanding. Where a problem includes substantial text, teachers read it aloud or adapt its presentation to pupils' reading and phonics stages while retaining the mathematical challenge.

Daily mathematics and Mastering Number

All classes have a daily mathematics lesson based on the planned curriculum. In Reception to Year 3, pupils also take part in NCETM Mastering Number sessions in addition to their daily mathematics lessons. These short, focused sessions develop number sense, understanding of number relationships, mathematical language and fluency with facts. Reception, Years 1 and 2 draw on Mastering Number at Reception and KS1; Year 3 continues with NCETM Mastering Number materials that extend the Reception and KS1 approach through the Embedding the Impact programme. Teachers connect learning from these sessions to the main mathematics curriculum.

Daily basic skills

Basic skills is taught every day as a separate session from the daily mathematics lesson. Its principal focus is arithmetic fluency: accurate and efficient recall of number facts, mental calculation and appropriate written methods. Teachers plan brief retrieval and practice using pupils' needs and the knowledge required for upcoming learning. In Years 1 and 2, this includes counting, subitising, number bonds and addition and subtraction facts within 20; older pupils practise place value, the four operations, multiplication tables and related division facts, fractions and decimal arithmetic as appropriate. Staff use number lines, part-whole diagrams and manipulatives when these clarify a strategy, then help pupils calculate efficiently without them. Regular checks help teachers adjust practice and give targeted support without replacing the full mathematics curriculum.

Teaching and learning the St Matthew's Way

Lessons follow the St Matthew's Way: teachers establish what pupils already know, introduce precise vocabulary and the learning goal, model a new idea, check understanding, provide guided and independent practice, and use feedback to decide the next step. The gradual "I do, we do, you do" approach helps pupils move towards independence. Teachers use concrete resources, visual representations and abstract notation in ways that make the mathematics clear, including ten frames, number lines, part-whole models, counters, base ten materials, arrays and bar models. A representation is chosen to reveal the structure of the calculation or problem. Pupils explain the link between the model, a spoken sentence and the written equation before moving to a more efficient method.

Teacher explanations are concise and purposeful, leaving substantial time for pupils to think, practise and talk mathematically. Silent signals support calm transitions and attention. Mixed-ability seating and talk partners give pupils opportunities to explain and compare approaches; teachers also use flexible groups when a particular gap requires focused teaching. Choral counting, oral rehearsal, stem sentences, partner problem solving and carefully chosen questions help pupils notice patterns, justify answers and discuss what is the same and different. Teachers select examples that vary one feature at a time, so pupils can notice what changes and what stays the same. Pupils practise a method, then apply it to missing-number questions, comparisons, true-or-false statements and problems in context. Questions such as ‘How do you know?’, ‘Can you show it another way?’ and ‘What is the same and what is different?’ require explanation as well as an answer. Mathematical talk and enquiry can draw on the school’s P4C approach where appropriate.

Inclusion and adaptation

The same ambitious mathematical ideas are made accessible through responsive teaching. For example, a pupil finding two-digit subtraction difficult may use base ten equipment and a place-value chart to exchange one ten for ten ones, while still explaining the same calculation as classmates. Teachers may pre-teach vocabulary, use Widgit symbols or visual instructions, break a task into manageable steps, provide sentence stems, use manipulatives, enlarge or simplify the presentation, offer additional guided practice, or allow an alternative way to record a response. Pupils learning English benefit from visuals, oral rehearsal and explicit teaching of mathematical language. Teachers check that adaptations remove a barrier without reducing the mathematical goal, and review them with the SENDCO and families where appropriate.

Assessment and responsive teaching

Teachers assess prior knowledge through entry quizzes, discussion, targeted questions and short tasks. During lessons they use mini whiteboards, low-stakes quizzes, observation and purposeful questioning to see what each pupil understands. A no-hands-up approach, including lollipop sticks and supportive cold calling, helps teachers hear from a broad range of pupils while allowing thinking time and appropriate support.

Teachers anticipate likely misconceptions during planning, identify gaps early and adapt examples, grouping, pace and practice accordingly. For example, if mini whiteboards show that several pupils count all objects when adding, the teacher can model counting on from the larger number, use a number line and check the strategy again before independent practice. End-of-lesson and end-of-unit information informs consolidation, further teaching and targeted support. Short, focused intervention revisits an identified prerequisite, such as number bonds or place value, and is linked back to class teaching. Assessment is used to improve learning, and staff avoid collecting evidence that does not help them make a teaching decision.

Personal development and Building the Kingdom

Mathematics is connected to meaningful experiences through practical investigations, games, visits, visitors and real-life problems. Pupils may measure and scale for a design project, compare prices and change in a class shop, collect and interpret data about their local community, or estimate and check quantities in the school environment. Children learn to collaborate, listen respectfully, persist with challenge and explain their reasoning. In keeping with Catholic social teaching, we use mathematics to consider fairness, stewardship and service where a genuine curricular link exists, for example interpreting data about resources or the environment.

Leadership monitoring and review

Class teachers plan, teach, adapt and assess mathematics, maintain accessible mathematical working walls, and communicate concerns about progress. Class teachers have regular communications with subject leads to gain advice and guidance. We recognise the importance of strong subject leadership at St Matthew's. Allocated subject leadership time enables the mathematics leader to undertake learning walks, review planning, monitor books and standards, and provide team teaching and coaching sessions with staff. Subject leaders regularly lead CPD during staff meetings and share effective practice from their subjects across the school. In mathematics, this includes modelling representations, discussing common misconceptions and agreeing approaches to mathematical talk and fluency. These activities focus on how well pupils understand and retain mathematical knowledge, the consistency of representations and vocabulary, and the effectiveness of adaptations. The curriculum lead and senior leaders ensure the curriculum is implemented consistently and provide time and support for improvement. Governors hold leaders to account for the quality and accessibility of mathematics provision. Findings from monitoring and assessment inform action plans, staff development and changes to curriculum planning. Mathematics Lead regularly creates Governors reports to ensure school governors are aware of the strengths, areas for development and next steps in mathematics.

Working with families

Year group curriculum information is shared with parents and carers, along with practical ways to support counting, number facts and mathematical talk at home. Teachers discuss individual progress and support with families as needed. The school's published information should reflect the curriculum pupils actually experience. Mathematics lead holds termly parent workshops to provide practical strategies for their children.

Homework

At St Matthew's, MyMaths, NumBots and Times Tables Rock Stars provide additional opportunities to practise mathematics in school and at home. Teachers use MyMaths to set activities linked to current or previously taught topics and to review pupils' understanding. NumBots helps children strengthen number sense, number bonds, addition and subtraction facts. Times Tables Rock Stars supports regular practice of multiplication tables and related division facts. Teachers choose activities that match pupils' learning needs and use what they notice to plan further practice or support. These resources reinforce the daily mathematics lesson, Mastering Number and basic skills teaching.

Related guidance

Early Years Foundation Stage statutory framework; National Curriculum in England mathematics programmes of study; Oak National Academy primary mathematics curriculum; NCETM Mastering Number and curriculum prioritisation materials; school assessment and SEND policies.