



KS1 & KS2 Mathematics Policy

Fluency · Reasoning · Problem Solving

Policy purpose and vision

At St Mary's RC Primary School, we believe that every child can succeed in mathematics. This policy sets out how the school provides an inclusive, coherent and ambitious mathematics curriculum in Key Stages 1 and 2, and how leaders evaluate its impact on pupils' achievement.

We aim to develop confident, curious and resilient mathematicians who understand concepts deeply, reason and explain clearly, solve problems, and recognise the relevance of mathematics in everyday life. Teaching is organised around the National Curriculum pillars of fluency, reasoning and problem solving.

1 • Inclusion

The school is committed to removing barriers so that all pupils, including pupils with SEND, disadvantaged pupils, pupils with English as an additional language, pupils who need additional practice and pupils working at greater depth, can participate fully and make strong progress in mathematics.

Inclusive entitlement and curriculum adaptation

- All pupils access an ambitious mathematics curriculum. Teachers maintain the intended mathematical goal while adapting explanations, representations, resources, task structure, language and adult support to meet identified needs.
- Only pupils with identified special educational needs work on objectives below their year-group expectations where this is necessary and appropriate. Their learning is aligned as closely as possible to the mathematical strand taught by the class.
- Concrete resources, pictorial representations, worked examples, stem sentences, key vocabulary and structured mathematical talk are used to make concepts accessible without lowering expectations.
- Pre-teaching, same-day intervention, guided practice and additional rehearsal address gaps promptly. Staff use assessment to ensure support is targeted, reviewed and reduced when pupils become more independent.
- Greater-depth pupils receive challenge through explanation, proof, comparison, generalisation and unfamiliar problems rather than being moved through content prematurely.
- Year 1 continuous provision enables pupils to revisit number, counting, shape, measurement and spatial reasoning through purposeful play, practical resources and real-life problem solving.

Use of funding and resources to reduce barriers

Leaders deploy available school funding, including pupil premium and SEND resources where appropriate, according to assessed need. Spending decisions are linked to barriers identified through assessment, pupil progress meetings, attendance and engagement information, and dialogue with pupils and families.

- Funding supports high-quality manipulatives and class mathematics boxes so pupils can move securely through concrete, pictorial and abstract representations.

- Digital programmes, including Maths-Whizz, Times Tables Rock Stars and NumBots, provide additional adaptive practice at school and through the homework curriculum. Where home access is a barrier, pupils are given appropriate opportunities to use these resources in school.
- Staff deployment, intervention time, professional development and suitable teaching materials are prioritised where evidence indicates that they will improve access, participation or progress.
- The Mathematics Lead and senior leaders evaluate the impact of funded provision on pupils' learning rather than judging success by participation or resource use alone.

Inclusive classroom practice

- Teachers explicitly teach and revisit mathematical vocabulary, using visuals, examples and sentence stems to support pupils with language needs.
- Teaching assistants reinforce the teacher's intended method and vocabulary, promote independence and use manipulatives purposefully rather than completing work for pupils.
- Mistakes are treated as valuable evidence of thinking. A culture of explanation, resilience and respectful discussion enables pupils to contribute without fear of failure.
- Reasonable adjustments are recorded and communicated so that practice remains consistent between lessons and year groups.

2 · Curriculum and Teaching

The mathematics curriculum is designed to provide continuity, breadth and depth from early number development through the end of Key Stage 2. White Rose Maths is the principal teaching sequence, used with professional judgement to secure National Curriculum coverage, coherent small-step progression and consistency across year groups.

Curriculum continuity and breadth

- Long- and medium-term planning identify the progression of knowledge, representations, vocabulary and calculation methods so that new learning builds deliberately on what pupils already know.
- Teachers use assessment and transition information to revisit essential prerequisite knowledge while avoiding unnecessary repetition or gaps between year groups.
- The full breadth of number, calculation, fractions, ratio and proportion, algebra, measurement, geometry and statistics is taught as required by the relevant National Curriculum programme of study.
- Connections between mathematical domains and real-life contexts are made explicit so pupils can select and apply knowledge rather than experience topics as isolated units.
- Working dry-wipe boards communicate the current learning journey through concrete, pictorial and abstract examples, key vocabulary and stem sentences.

Core programmes

White Rose Maths: the main teaching sequence and mastery approach, supplemented where necessary to meet pupils' needs and secure depth.

Flashback 4: a daily five-minute retrieval activity that typically revisits learning from the previous lesson, several days earlier, several weeks earlier and a previous unit, term or year.

Mastering Number: daily 10-15 minute sessions from Reception to Year 5 that strengthen subitising, number composition, fluency and flexible number thinking.

Arithmetic practice: weekly or fortnightly KS2 practice that develops rapid recall, accuracy and secure written methods.

Maths-Whizz: adaptive online tutoring used weekly at home or, where needed, in school, with engagement and progress monitored by teachers.

Times Tables Rock Stars and NumBots: short, frequent, gamified practice that develops number facts, addition, subtraction, multiplication and division fluency and supports preparation for the Year 4 Multiplication Tables Check.

Everyday lesson delivery

A typical lesson includes fluency practice, concept development and opportunities for reasoning and problem solving. Teachers adapt the sequence responsively while maintaining clear mathematical purpose.

St Mary's Mathematics Mastery - Lesson Structure	
Explore	Real life problem or stimulus with resources. Go through.
WALT & Key Vocabulary	Introduce learning intention & key vocabulary – keep to a minimum. Any recap of vocabulary.
Develop & Practice	Sentence stems MTYT (My Turn Your Turn) TTYP (Talk To You Partner) ToL (Think out Loud) Direct to correct method/New teaching I do/We do model Whiteboards/Maths boxes/Any other resources (if applicable)
Independent Work	WRH Premium Resources – MIXED ABILITY GROUPS Children work through WRH Premium – T support those identified in practice. Use White Rose TA hub sheets for further practice if needed. Differentiated through – peer support/T or TA support/concrete resources. Only SEN should work on those objectives lower than their year group but should try to align as best they can to the strand being taught.
Stretch & Challenge	If a pupil has completed the WRH questions, use the following resources to stretch and challenge: NCETM Year Group/iseereasoning KS1/LKS2/UKS2/Convince me cards/Reasoning paper questions/White Rose Challenges/White Rose True/False Have extra challenges from previous learning to continue learning and sticky knowledge for GD pupils.

Pedagogical expectations

- Teachers use a concrete-pictorial-abstract approach, selecting representations that expose mathematical structure and helping pupils make links between them.

- Mathematical talk is planned. Pupils are expected to describe methods, compare approaches, use precise vocabulary and justify conclusions.
- Fluency is developed alongside conceptual understanding; speed is not pursued at the expense of accuracy, meaning or confidence.
- Reasoning and problem solving are woven through teaching rather than reserved for pupils who finish routine questions.
- Feedback and questioning identify misconceptions during lessons and inform immediate adjustment, further practice or intervention.

Assessment and responsive teaching

- Formative assessment through questioning, observation, discussion, mini-whiteboards and pupils' work is used daily to adapt teaching.
- White Rose assessments and arithmetic checks are used termly alongside teachers' wider evidence. No single test determines a judgement.
- Progress is reviewed termly in pupil progress meetings. Leaders and teachers agree actions for pupils and cohorts at risk of falling behind and review whether those actions have worked.
- Assessment information informs planning, intervention, resource allocation and professional development.

3 · Achievement

The intended outcome of this policy is that pupils know more, remember more and can apply mathematics with increasing independence. Achievement is evaluated through attainment, progress, depth of understanding, fluency, reasoning, problem solving and pupils' confidence as mathematicians.

Expected outcomes

- Pupils make sustained progress from their starting points and are well prepared for the next year group and the next phase of education.
- An increasing proportion of pupils meet or exceed age-related expectations, while gaps affecting disadvantaged pupils, pupils with SEND and other identified cohorts narrow over time.
- Pupils recall essential number facts and calculation methods accurately and efficiently and can explain why methods work.
- Pupils select representations and strategies appropriately, reason using precise language and solve familiar and unfamiliar problems.
- Year 4 pupils are prepared for the Multiplication Tables Check through secure understanding and regular, proportionate practice.

Evaluating progression and contextual performance

Leaders evaluate achievement termly and annually using a rounded evidence base. Internal assessment is considered alongside pupils' books, lesson visits, pupil discussion, statutory outcomes where available, and the quality of pupils' explanations and application.

- Attainment and progress are considered from pupils' starting points and are analysed by year group, subject domain and relevant pupil cohort.
- Published outcomes are compared, where suitable data are available, with national figures and with schools serving pupils in similar contexts. Comparisons are interpreted carefully, taking account of cohort size, prior attainment, levels of disadvantage, SEND, mobility and other contextual factors.
- Leaders identify whether differences are persistent and educationally significant rather than responding to a single percentage or small cohort fluctuation.
- Where outcomes are below those of appropriate comparators, leaders identify likely curriculum, teaching or access barriers; agree time-bound actions; allocate support or funding; and review impact through the next assessment cycle.
- Where outcomes are strong, leaders test whether success is evident across cohorts and mathematical domains and use the evidence to sustain effective practice.

Evidence of policy impact

The policy is effective when curriculum implementation leads to visible improvement in pupils' knowledge and independence. Leaders expect to see coherent progression in books and lessons, increasingly secure recall, accurate use of vocabulary, stronger explanations, successful application to unfamiliar problems and reduced reliance on adult scaffolding.

Impact measures and improvement priorities are recorded through the school's normal self-evaluation and development-planning processes. Governors receive a clear account of mathematics outcomes, cohort differences, contextual comparisons, the impact of targeted funding and the actions being taken.

Roles and responsibilities

Mathematics Lead: oversees curriculum design and implementation; supports planning, professional development and resourcing; monitors teaching, assessment and progression; evaluates cohort outcomes and the impact of provision; and reports priorities to senior leaders and governors.

Teachers: plan and deliver high-quality lessons; use assessment responsively; adapt provision without reducing ambition; promote reasoning and resilience; and communicate concerns and progress.

Teaching Assistants: support guided practice, vocabulary and purposeful use of representations; follow the teacher's intended approach; provide feedback on pupils' understanding; and promote independence.

Senior Leaders and Governors: ensure appropriate challenge, resources and accountability; review the impact of funding and curriculum adaptation; and assure themselves that all cohorts receive an ambitious and effective mathematics education.

Parental engagement

Parents and carers are supported to reinforce mathematics through school workshops, calculation guidance and curriculum information. Maths-Whizz, Times Tables Rock Stars and NumBots support short, regular practice. Communication emphasises encouragement, understanding and fluency rather than pressure or speed alone.

Monitoring and review

The Mathematics Lead and senior leaders monitor this policy through learning walks, lesson visits, book scrutiny, planning review, assessment analysis, pupil voice and discussion with staff. Monitoring considers curriculum fidelity, quality of adaptation, participation, progression and differences between cohorts.

This policy is reviewed annually, or earlier when curriculum requirements or school priorities change, and is approved through the school's governance arrangements.

Our St Mary's promise

- We teach for depth, not speed.
- We build strong number sense from the earliest years.
- We encourage reasoning, curiosity and resilience.
- We remove barriers while maintaining ambitious expectations.
- We make mathematics meaningful, engaging and enjoyable for all.
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Revised and adopted by the Governing Body

Date: September 2026

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