Maths Policy for St Nicholas Catholic Primary School

Introduction

At St Nicholas Catholic Primary School, we believe that mathematics is fundamental to every child's education and life beyond school. This Mathematics Policy outlines the purpose, aims, statutory requirements and practical approaches for delivering high-quality mathematics education at St Nicholas. It is written in accordance with the 2014 National Curriculum for Mathematics, Ofsted's Education Inspection Framework 2019, and relevant statutory guidance including the Equality Act 2010, SEND Code of Practice 2015 and the Health and Safety at Work etc. Act 1974.

We aim for every pupil to become a confident, fluent and resilient mathematician who can reason mathematically, solve problems effectively and apply their mathematical understanding in school, at home and in the wider world. Through mathematics, children develop the knowledge, skills and confidence to make sense of number, shape, space, measure and data, while building the habits of mind needed for future learning and everyday life.

Mathematics is a high priority across the school. We provide a broad, balanced and ambitious curriculum that develops fluency, reasoning and problem solving through carefully sequenced teaching, rich mathematical talk, high-quality representations and purposeful practice. Our approach is designed to support all pupils, including those in mixed-age classes, so that every child can achieve well and enjoy mathematics.

Aims

- Develop confident, fluent and accurate use of mathematical knowledge and skills.
- Ensure pupils can reason mathematically by using precise language, making connections and justifying their thinking.
- Enable pupils to solve routine and non-routine problems with increasing independence and perseverance.
- Develop a deep conceptual understanding of mathematics through a Teaching for Mastery approach.
- Secure number sense, mental fluency and efficient recall of facts and methods.
- Support pupils to use mathematical vocabulary accurately and confidently.
- Develop pupils' ability to represent mathematics in concrete, pictorial and abstract forms.
- Provide opportunities for pupils to explain, discuss and debate their mathematical thinking.

- Enable pupils to apply mathematics meaningfully across the curriculum and in everyday life.
- Ensure all pupils, including those with SEND and those who need additional support, can access and succeed within the mathematics curriculum.

Statutory and Regulatory Framework

This policy is informed by and should be read alongside the following statutory and regulatory documents:

- National Curriculum in England: Mathematics programmes of study (2014)
- Ofsted's Education Inspection Framework 2019 (EIF), particularly expectations concerning the quality of education, curriculum intent, implementation and impact
- Equality Act 2010, including the requirement to avoid unlawful discrimination and make reasonable adjustments where required
- Special Educational Needs and Disability (SEND) Code of Practice: 0 to 25 years (2015)
- Health and Safety at Work etc. Act 1974, alongside the school's wider health and safety procedures

Curriculum Coverage

The mathematics curriculum at St Nicholas provides comprehensive coverage of the statutory programmes of study for all year groups and is carefully sequenced to support secure progression. Across the school, pupils study:

- Number and place value
- Addition and subtraction
- Multiplication and division
- Fractions, decimals and percentages
- Ratio and proportion where applicable
- Algebra where applicable
- Measurement
- Geometry, including shape and position and direction
- Statistics
- Problem solving and reasoning
- Mental fluency and number sense
- Mathematical language and vocabulary
- Application of mathematics in real-life and cross-curricular contexts

Our curriculum is adapted for mixed-age classes so that both year groups are taught on the same mathematical strand simultaneously, with differentiation through small steps, depth of thinking and responsive support.

Curriculum Implementation

Teaching for Mastery

At St Nicholas, our mathematics teaching is underpinned by a Teaching for Mastery approach. We believe that all pupils can succeed in mathematics when learning is carefully sequenced, misconceptions are addressed promptly and concepts are explored in depth.

Mastery teaching ensures that pupils:

- Build secure understanding before moving on
- Make connections between mathematical ideas
- Use representations to deepen understanding
- Develop confidence through discussion, rehearsal and practice
- Apply learning in a range of contexts

Our teaching is based on the principle that pupils should move forward together as a class, with support and challenge adapted as needed. We do not routinely lower expectations. Instead, we remove barriers, provide scaffolding and use high-quality questioning and modelling to support access.

Concrete–Pictorial–Abstract Approach

Our teaching is grounded in the Concrete–Pictorial–Abstract (CPA) approach. Pupils are first supported to explore mathematical ideas using practical resources, before moving to pictorial representations and then abstract recording.

This helps pupils to:

- Understand the structure of mathematics
- Make meaningful connections between representations
- Develop a deep conceptual foundation
- Apply methods flexibly and confidently

EYFS Foundations

In Reception, mathematics is taught through a carefully sequenced developmental progression using White Rose Maths EYFS alongside Mastering Number. Children develop secure early mathematical understanding through practical exploration, stories, songs, games, routines and purposeful play.

Children are supported to develop:

- Number and quantity
- Numerical patterns
- Shape and spatial reasoning
- Measure
- Problem solving and reasoning

Particular emphasis is placed on:

- Counting accurately with understanding
- Composition of number
- Early number bonds
- Mathematical vocabulary and talk
- Making connections through continuous provision

Mathematics learning continues beyond adult-led sessions through enhanced provision in areas such as construction, water and sand, role play, outdoor learning, and small world and creative activities.

Number Sense

From Year 1 to Year 4, all pupils take part in a daily Number Sense session for the first 10 minutes of the mathematics lesson. These sessions follow the school's agreed sequence and support the development of:

- Addition and subtraction facts
- Number bonds
- Doubles and near doubles
- Complements within and across 10
- Multiplication and division facts
- Efficient strategies for recalling known facts
- Increasing automaticity and flexibility

From Year 5 onwards, pupils complete weekly Number Sense consolidation sessions to maintain and strengthen fluency.

Number Sense is not a separate activity but an integral part of the wider mathematics curriculum. Teachers make explicit links between fluency work and calculation, reasoning and problem solving.

Medium-Term Planning

Our medium-term planning is based on the White Rose Maths long-term plan and has been adapted for our mixed-age classes. This ensures that both year groups within a class study the same mathematical strand at the same time, with differentiation through year-group small steps.

Planning includes:

- Pre-teaching where appropriate
- Introduction of new vocabulary
- Daily teaching following a guided, independent and challenge structure
- Reasoning and problem-solving lessons or elements
- End-of-topic assessment and consolidation

Week 6 in each class is used flexibly for consolidation, stretch, review and informal assessment.

Lesson Structure

Mathematics lessons are taught daily and follow a consistent structure:

1. Recap and Review

This section revisits prior learning and activates relevant knowledge. It helps pupils make connections between what they already know and the new learning to come.

2. Guided Practice

The teacher models the day's learning clearly, using an **I do, We do, You do** approach. Guided practice includes:

- Explicit modelling
- High-quality questioning
- Concrete and pictorial representations
- Worked examples
- Discussion of misconceptions
- Varied fluency and challenge

3. Independent Practice

Pupils apply their learning with increasing independence. Tasks are closely matched to the learning objective and designed to secure understanding step by step.

4. Challenge

Challenge is embedded throughout the lesson, not added as an extension at the end. It may appear in the hook, guided practice, independent work or plenary. Challenge develops:

- Deeper reasoning
- Generalisation
- Problem solving

- Mathematical thinking

Language-Rich Mathematics

Mathematics at St Nicholas is deliberately language rich. Pupils are encouraged to talk about their thinking using:

- Think, pair, share
- Reasoning conversations
- Stem sentences
- Tier 2 and Tier 3 vocabulary
- Lollipop sticks and whole-class participation
- Number stories
- Mathematical journalling in Key Stage 2

Teachers model precise mathematical language and expect pupils to explain not just what they know, but why it is true.

Mathematical Journaling

From Year 4 onwards, pupils are encouraged to record worked examples, reasoning, explanations, representations and reflections in their maths books. Journaling supports pupils to:

- Organise their thinking
- Record methods clearly
- Begin to explain strategies and misconceptions

Year 3 pupils are not formally expected to journal, although teachers may use journaling approaches where helpful.

Fluency, Reasoning and Problem Solving

The three aims of the Primary Mathematics Curriculum are central to our approach:

Fluency

Pupils develop secure recall and accurate application of facts, methods and procedures. Fluency is taught with understanding, not rote memorisation alone.

Reasoning

Pupils explain, justify, conjecture, compare and prove. They are expected to use mathematical language to describe patterns and relationships.

Problem Solving

Pupils apply their knowledge to routine and non-routine problems. They are taught to break down problems into manageable steps and persevere in finding solutions.

These three elements are integrated throughout lessons and units of work.

Assessment

Assessment is an integral part of mathematics teaching and is used to identify what pupils know, understand and can do, and to plan next steps.

Assessment includes:

- Ongoing formative assessment in every lesson
- Whole-class whiteboards and hinge questions
- Questioning, observation and live feedback
- Formative assessment sheets
- Weekly review and retrieval
- Termly summative assessment using Testbase
- Gap analysis and consolidation following assessments
- Use of data trackers and end-of-term assessment records

Assessment information is used to inform teaching, identify misconceptions and plan support or challenge.

Intervention

Teaching for mastery requires pupils to move with the class, with support and scaffolding adjusted responsively. Intervention may include:

- Immediate in-lesson support
- Whole-class revisiting of misconceptions
- Early gate support
- Targeted intervention with teaching assistants or teachers
- Pre-teaching where appropriate
- Green pen corrections for minor errors
- Recorded intervention work where further teaching is needed

Intervention is planned carefully and reviewed regularly through the school's assess, plan, do, review approach.

Inclusion

We are committed to being a fully inclusive school where all pupils are welcomed, valued and supported to succeed.

Our first approach is always high-quality teaching. The learning objective remains the same for all pupils wherever appropriate, and we focus on identifying and removing barriers rather than routinely lowering expectations.

We support access through:

- Concrete resources and manipulatives
- Visual models and pictorial representations
- Mathematical vocabulary support
- Sentence stems
- Explicit modelling and worked examples
- Careful scaffolding
- Flexible adult support
- Adapted recording methods
- Assistive technology where appropriate
- Greater depth opportunities
- Assess–plan–do–review approaches for pupils requiring additional support

Where needed, pupils may demonstrate understanding in different ways, including verbally, practically, pictorially or through supported written recording.

Roles and Responsibilities

Role	Responsibilities
Headteacher and Senior Leadership Team	Provide strategic leadership, ensure appropriate resources and staffing, and monitor the quality and impact of mathematics provision.
Mathematics Subject Leader	Lead curriculum development; support staff; monitor planning, teaching, books and assessment; identify priorities; coordinate enrichment and contribute to whole-school improvement.
Class Teachers	Plan and teach high-quality mathematics lessons; assess pupils regularly; adapt teaching; promote fluency, reasoning and problem solving; and maintain strong home-school links.
Teaching Assistants	Support pupils through targeted intervention, guided practice and scaffolding while promoting independence.
Pupils	Engage positively with mathematics, practise regularly, discuss and explain ideas, and take increasing responsibility for their progress.
Parents and Carers	Support mathematical learning at home, encourage discussion and number confidence, and promote positive attitudes towards mathematics.

Professional Development

Staff development is informed by monitoring, assessment and identified curriculum priorities. Professional development supports staff in:

- Teaching for Mastery
- White Rose Maths
- Number Sense
- CPA approaches
- Mathematical talk and questioning
- Adaptive teaching
- Reasoning and problem solving
- Assessment and misconception analysis

Subject leadership supports colleagues through professional dialogue, coaching, modelling, shared resources and monitoring of curriculum implementation.

Enrichment and Cultural Capital

Mathematics is enriched through opportunities that help pupils see the relevance and enjoyment of the subject. These may include:

- Practical investigation and enquiry
- Mathematics in the wider curriculum
- Real-life problem solving
- Use of the school motto **#WhereIsTheMathsInThat?**
- Links to careers, finance, measuring, design and technology, science and computing
- Challenges, quizzes and enrichment activities

Pupils are encouraged to see themselves as mathematicians who can explore, question, explain and solve problems in the real world.

Monitoring and Review

Mathematics is monitored through:

- Learning walks
- Book looks
- Assessment reviews
- Pupil voice
- Professional dialogue

Monitoring evaluates curriculum coverage, consistency, progress, teaching quality and the impact of intervention.

The Mathematics Subject Leader coordinates the monitoring cycle and reports findings to senior leaders. Priorities identified through monitoring inform professional development, curriculum development and school improvement.

This policy will be reviewed annually, or sooner if statutory guidance, national expectations or school priorities change.

Policy Review

Policy	Mathematics Policy
Academic Year	2026–2027
Subject Leader	Bronte Medley & Freya McAndrew
Review Date	July 2027