MATHEMATICS POLICY

St John's Church of England Infant School

Date approved	**Sept 2025**
Review date	**Sept 2026**

From the smallest of seeds fed with faith and love our St John's family will flourish and grow.

All of our polices are written with the aim of improving our school and of realising our Christian vision:

From the smallest of seeds fed with faith and love our St John's family will flourish and grow.

Our vision underpins every document, procedure and decision made within our setting. We are committed to enabling all members of our small community to **flourish and grow** through the values of faith and love and to ensuring that they go on equipped for 21st century living and to have a positive impact on the world.

Based on the teachings of Matthew 13:31

1 Aims and objectives

At St John's we aim for all of our children to develop:

- a positive attitude towards mathematics and an awareness of the relevance of mathematics in the real world
- competence and confidence in mathematical knowledge, concepts and skills
- an ability to solve problems, to reason, to think logically and to work systematically and accurately.
- initiative and an ability to work both independently and in cooperation with others
- an ability to communicate mathematics
- an ability to use and apply mathematics across the curriculum and in real life
- an understanding of mathematics through a process of enquiry and experiment

The National Curriculum for mathematics aims to ensure that all pupils:

Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

Reason mathematically by following a line of enquiry, conjecting relationships and generalisations, and developing an argument, justification or proof using mathematical language.

Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including

breaking down problems into a series of simpler steps and persevering in seeking solutions.

Within school we design our teaching experiences around a broad and balanced curriculum so that every child can fulfil these aims.

2 Our approach to Mathematics

In the foundation stage pupils experience mathematics on a daily basis, through teacher directed tasks and child-initiated play. This early introduction to mathematics will generally be undertaken orally and often in the context of a class theme. Opportunities for mathematics are consolidated through daily routines and all areas of learning. The classroom environment supports both the learning and teaching of mathematics, and strives to be stimulating. The use of working walls, interactive displays that promote mathematical thinking and discussion, examples of pupils' work that celebrate achievement, including WAGOLLs ('What a good one looks like') and the provision of a good range of resources and manipulatives for teacher and pupil use are paramount. Children are encouraged to access a wide range of resources independently in both the indoor and outdoor classrooms.

In KS1 the children have daily mathematics lessons which consist of the following:

- 5 minutes of number fluency and 5 mins of maths reasoning where every child is actively involved in a mental and oral focused task. On Fridays, in Year 2, this takes the form of a times table test which is recorded in their maths journals
- This is followed by the introduction of Our Learning Intention (OLI) and Our success criteria (OSCI)
- The children discuss the anchor task taken from the Third Space Learning Maths teaching resources and, through paired exploration and modelling by the teacher, solve the problem
- Using manipulatives and methods specified by the teacher, the children solve similar problems to the anchor task – known as guided tasks
- Children them begin independent maths tasks

- Challenge tasks are available every lesson, focussed on deepening children's understanding and strengthening their application of maths to a variety of questions recorded in their maths journals
- The lesson is rounded off with an Assessment for Learning (AFL) task, this will focus on problem solving. On Fridays, this will be an Explain the Error (ETE) activity where the children need to identify the mistake made in the calculation, correct it and explain why it was wrong. These tasks will also be recorded in their maths journal.

3 Our expectations from our Teachers and Children in Mathematics

Key Aspects	Teacher	Pupils
High expectations of engagement and attainment for every child	Conveys the message that progress is made through engagement and effort. Expects every pupil to succeed. Is enthusiastic about the learning expected. Gives every pupil the opportunity to experience or master key ideas.	Have high aspirations, believe they can achieve and work hard in order to do so. Want to learn and enjoy learning.
	Follows a mastery curriculum. Differentiates through scaffolding, questioning and use of concrete and pictorial representations – instead of offering pupils different tasks. Uses speaking and listening activities, engaging resources and novel 'ways in' to a concept. Extends through further developing depth of language, conceptual understanding or mathematical thinking. Immediately acts on assessment from questioning and observation	Explore mathematics and ask questions to deepen their appreciation of the subject. Are challenged by solving less routine problems, demonstrating using concrete manipulatives/drawing diagrams, explaining in full sentences or asking their own questions.
Fewer topics, greater depth, Depth of mastery for all	Develops conceptual understanding through multiple representations and connections. Has a full understanding where and why this lesson falls in the sequence and in the longer-term development of pupils' mathematical understanding. Anticipates and incorporates misconceptions and inaccuracies.	Have access to concrete manipulatives. Manipulate objects or use pictorial representations to deepen their understanding. Make links between concrete, pictorial and abstract representations Link new learning to previous learning in mathematics, other subjects and beyond school. Demonstrate conceptual understanding through tackling new problems.
	Develops communication of mathematical ideas, justifications and proofs Uses modelling to support pupils in developing independence in their mathematical recording. Considers own language and models expected language use clearly and accurately.	Participate in pair/group discussion tasks. Are ready to answer in class questioning/ discussion. Speak in full sentences. Use correct mathematical words and symbols. Use the key words
	Develops mathematical thinking and ability to generalise Ensures every pupil participates in active thinking through a variety of questioning techniques. Encourages use of independent learning strategies, such as journaling. Involves pupils in generalising by comparing and classifying mathematical objects or talking about what might be sometimes, always or never true.	Do as much of the cognitive work – writing, thinking, analysing and talking – as possible. Seek general patterns and create examples.

Every opportunity is used to develop mathematical problem solving	Ensures that lesson time is used purposefully. Makes clear what pupils should be doing at every point in the lesson, so no time is wasted. Minimise teacher talk.	Participate fully – everyone is engaged in the task. Collaborate, discussing their thinking. Work independently for some of the lesson. Demonstrate mastery and the ability to 'go it alone'

4 Our approach to the planning of Mathematics

Teacher's base all their planning on the statutory objectives produced in government documents and use Third Space Learning Maths resources to facilitate this.

Through Years 1 and Year 2, they use a coherent programme of high-quality materials and exercises, which are structured with great care to build deep conceptual knowledge alongside developing procedural fluency.

The Third Space Learning maths concepts are arranged in blocks and, over the course of the academic year, all units of the National Curriculum 2014 are covered.

Teachers write daily plans based on the Third Space Learning teaching blocks and timetable Mathematics learning in for pupils once each day.

5 Our approach to the assessment and reporting of Mathematics

Teachers and teaching assistants write assessment notes about pupils on daily lesson plans. These are then used to inform the lesson planning process for further learning the next day.

Teachers assess individual pupils against government objectives each week during their PPA time. These electronic records are held on the school system and can be monitored by the SLT as and when required.

Teachers use the post-topic assessment questions from Third Space Learning to assess pupil understanding of particular strands of mathematics. Teachers use these questions to identify gaps in learning and then plan to address these gaps in intervention sessions and number fluency activities.

Teachers assess individual pupils against national standards for each age group at the end of each term.

Teachers report to parents on their child's standards in Mathematics 2 times a year and inform them of what they can do at home to progress their child's learning further.

6 Our approach to the monitoring of Mathematics

The Mathematics Manager and SLT monitor the quality of teacher assessments in Mathematics at least once per year.

Where concerns are identified, individual members of staff are monitored more regularly and support is put into place in order to help the quality of their work to improve.

The governing body monitor standards of teaching and learning in Mathematics at least once per year and hold the school's Headteacher to account.

7 Our approach to the review of the Mathematics policy

The Mathematics Manager reviews the school policy at least once a year. The governing body review the Mathematics policy at least every 3 years in accordance with statutory guidance.