

St John's Vision for Mathematics

At St John's we foster positive can-do attitudes, and we promote the fact that 'We can all do maths!'. Our school is a caring Christian community where we recognise the uniqueness of every individual. We value and encourage everyone do their best so that 'together we learn'. Maths sits at the heart of daily life and children will be given the opportunity to experience the awe and wonder of numerical and geometrical patterns and rules. We believe all children can achieve in mathematics and teach for secure and deep understanding of mathematical concepts through manageable steps. We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated problems.

We aim for all pupils to:

- become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- be able to solve problems by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios
- reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.
- have an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately to be successful in mathematics.

At St John's, we follow the White Rose schemes of learning which are in line with our mastery approach to teaching maths and with the National Curriculum. We chose White Rose Maths as they believe 'Everyone Can Do Maths' and so do we!

Implementation

At St John's, children study mathematics daily following the **White Rose Maths** Scheme of Learning. WRM is a blocked scheme, which allows for depth and breadth of learning within each strand of mathematics.

Concrete, Pictorial and Abstract Learning:

Children engage with a wide and varied range of concrete manipulatives, pictorial representations and abstract methodologies within each session. Cohesive use of CPA is a fundamental part of mastery in mathematics for all learners, not just those pupils with SEND. Concrete and pictorial references scaffold and strengthen understanding and are widely used as a teaching and learning tool from Foundation Stage to Year 6.

Mathematical Vocabulary:

Sessions include explicit reference to vital mathematical vocabulary and the use of stem sentences to support and encourage all children to communicate their ideas with mathematical precision and clarity. These sentence structures often express key conceptual ideas or generalities and provide a framework to embed conceptual knowledge and build understanding.

Fluent Recall:

We are committed to ensuring that pupils secure their knowledge of Times Tables and Related Divisional Facts by

the end of Year 4. Our pupils engage in regular low stakes testing through Times Tables Rock Stars to practice fluent recall.

Mastering Number:

This year, we are excited to be taking part in the NECTM Mastering Number programme. This project aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 1 and Year 2. The aim over time is that children will leave KS1 with fluency in calculation and a confidence and flexibility with number. Attention will be given to key knowledge and understanding needed in EYFS and progression through KS1 to support success in the future.

EYFS:

In Early Years mathematics we use the White Rose Hub scheme and the NCETM guidance alongside the Development Matters statements. Activities and experiences are frequent and varied and allow children to build on and apply understanding of Numbers to 10. Children are actively encouraged to use mathematical terminology within their understanding, with a focus on developing positive attitudes and interest in the subject.

Key Stage One:

Throughout **Key Stage 1**, we follow the White Rose Maths Schemes of Learning and supplement this with resources from NCETM Mastery Documents and Primary Stars Education to teach a broad and challenging curriculum. Our Mathematics curriculum provides many opportunities for children to develop confidence and fluency with whole numbers, counting and place value. The use of practical equipment, such as concrete objects and measuring tools, will support the children to gain a deeper conceptual understanding before being challenged through tasks and questions to explain their reasoning and solve a range of problems.

Impact

At St. John's, the expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. We aim for each child to be confident in each yearly objective and develop their ability to use this knowledge to develop a greater depth understanding to solve varied fluency problems and reasoning questions. Mathematics lessons allow for collaborative learning and thus encourage children to talk in pairs, small groups or through class discussion. For those children who grasp concepts rapidly, they will be challenged through a range of problems, whilst those not sufficiently fluent, will be provided with opportunities to consolidate their understanding through additional practice and first response intervention.

Formative Assessment:

Teachers carry out formative assessment in each session and feedback is given to children verbally, through self/peer assessment and through marking. Teachers then use this assessment to influence their planning.

Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

Summative Assessment:

Children's understanding of taught concepts will be assessed using end of block assessment tasks which provide opportunities to demonstrate their understanding fully.

Summative assessment will also take place through:

- end of Key Stage SATs in Year 2 and Year 6
- White Rose termly assessments in Years 1 to 5

- Year 4 Multiplication Check

Monitoring:

The Maths Leader will work alongside the other members of SLT to monitor and evaluate teaching and learning in Maths. This will take the form of learning walks, book and planning scrutiny, gathering pupil voice, discussions with staff and lesson observations and will cover all aspects of Maths. The SLT will monitor pupil progress in maths each term by analysing pupil data.

Pupil Voice:

Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they love learning about maths.