Mathematics at St. George's RC Primary School

Introduction to mathematics at St. George's:

Mathematical understanding is a crucial life skill which is very important at St. George's RC Primary School. Significantly mathematical learning is often maximised across the curriculum in different subject areas. According to the New National Curriculum the areas of learning include: Number, Geometry, Measurement, Statistics and Algebra. We believe that practical problem solving and engaging teaching will support every child in their mathematical development from Nursery to Year 6.

At St. George's our aims for teaching mathematics include:

- To become fluent in the fundamentals of mathematics.
- To recall and apply knowledge rapidly and accurately.
- To give reasons mathematically using mathematical language.
- To apply pupils mathematical knowledge through practical and real- life problem solving.
- To engage pupils by providing purposeful mathematical learning across the curriculum.
- To prepare children for life long mathematical learning.

Teaching/ Pedagogy of mathematics at St. George's:

Every day mathematics is taught throughout the school. Typically a lesson starts with interactive counting and an oral and mental starter; this is to stimulate learning and ensure mental maths is taught daily. The main teaching initially recaps prior learning to promote continuity. Then a new mathematical area as well as mathematical language is demonstrated by the teacher. At this point the children will experience a variety of exciting activities, which are often based around a practical problem. Children will have various opportunities to work individually, in a pair or as a small group. All children have individual maths targets to progress at their own pace. At the end of the lesson the class will discuss and give reasons about what they have learned using mathematical vocabulary. Finally, an exit activity will challenge and propel learning to the next lesson.

In addition, mental maths is taught once a week. This focuses on times tables, number bonds and quick accurate recall. Often maths games, songs and puzzles are used to support mental maths at St. George's.

Please also see our calculation policy.

Extra-curricular mathematics at St. George's:

Christmas Maths Game Competition!

KS1 Maths Problem Solving Club

KS2 Maths Problem Solving Club

Key Stage 1- Year 1 and Year 2

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools].

At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.
By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency.

Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

Lower Key Stage 2 – Year 3 and Year 4

The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.

Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

Upper Key Stage 2- Year 5 and Year 6

The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.

At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.

Pupils should read, spell and pronounce mathematical vocabulary correctly.

Please also see our Maths Vocabulary Progression policy.