

The aims of teaching mathematics at St Gregory's Primary School are 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, conjecturing 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

We stress the importance of knowing multiplication tables. All pupils are taught to develop efficient strategies for mental and written calculations which is clearly outlined within our school policy.

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.

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

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. **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.**

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.

To support and extend children's mathematical learning, they are able to access Mathletics using their personal password. They can earn points based on how much improvement they make in their own learning.