



## A Vision for Mathematics

*'Mathematics has beauty and romance. It's not a boring place to be, the mathematical world. It's an extraordinary place; it's worth spending time there.'*

*— Marcus du Sautoy, British mathematician*

At St. Mary's, we believe that mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. Our aim is to give children high-quality mathematics education which provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

We believe that all pupils should:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop **INDEPENDENCE**, conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by being **RESILIENT** and following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- solve problems by showing **INIATIVE** and 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 and **POSSIBILITIES**.
- apply their mathematical knowledge to science and other subjects.
- be **REFLECTIVE** about their learning and progress to make rich connections across mathematical ideas and concepts which have already been taught to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.
- be challenged through being offered rich and sophisticated problems before any acceleration through new content.
- use **ORACY** and variety of language to present a mathematical justification, argument or proof.
- develop a sense of **WELLBEING**, enjoyment and curiosity about the subject through mathematical reasoning enrichment mornings.

*'Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems.'* (National Curriculum Mathematics Programme of Study: key stages 1 & 2)