



## **Our Vision for the teaching of Mathematics**

### **Vision**

The aim of this statement is to summarise the high standards of Mathematics expected at St. Matthew's CPS, based on the latest Maths Curriculum, which is supported by our Maths Calculation Policy. We follow the White Rose programme for maths. This vision is shared with the parents of our pupils, and shared with our staff, who receive Continuous Professional Development (CPD) in all relevant areas.

### **Intent**

A child's ability to calculate; apply knowledge; to communicate fluently; to reason and to solve problems mathematically, forms the backbone of their education for life. As our children implement their mathematical skills, they should be able to identify the practical relevance of this subject and be able to apply their knowledge in an ever wider set of familiar and new contexts. Yet, this will only be possible if the children's appreciation of the subject is also nurtured, such that they gain a sense of enjoyment and a curiosity about maths. A solid mathematical knowledge and understanding can be seen in the fields of science, engineering and technology but is an element in most forms of employment, as well as being a crucial part of personal financial literacy and household management. Maths is so much more than a school subject.

At St Matthew's Catholic Primary School, we believe that mathematics equips pupils with a unique set of powerful tools to understand the world and how it operates. Our teaching of mathematics is based on the mastery approach – the belief that every child is capable of success.

Mathematical skills are essential to everyday life, and we endeavour to ensure that children develop a healthy and enthusiastic attitude towards mathematics that will stay with them for life. All teachers will promote a positive attitude towards Maths, delivering a rich, broad curriculum, which is enjoyable and relevant.

Our aim is to maximise the individual potential of children's understanding and knowledge, creating a supportive environment where pupils can respond to high levels of expectation and challenge and develop their independence. Children are encouraged to develop knowledge and skills, which improve their concrete understanding, using an interactive and hands on approach. We provide opportunities for them to problem solve, experiment with their ideas, test how reasonable their answers are and to question what they do not understand.

At St Matthew's CPS, Maths is taught in a way that enables children to make sense of the world around them by understanding number, measures, geometry, statistics, and relating these to everyday life.

We want to foster a confidence in mathematics where children can express ideas fluently and talk about the subject using appropriate mathematical language. Our aims in teaching Mathematics are that all children at an age appropriate level, will:

- Enjoy the subject and study it with enthusiasm, confidence and a sense of achievement.

- Become fluent in the fundamentals of mathematics 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.
- Solve problems by applying their mathematics to a variety of problems with increasing sophistication including breaking them down into a series of simpler steps and persevering in seeking solutions.
- To develop an understanding of the connectivity of patterns and relationships within mathematics.
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations and developing an argument, justification or proof using mathematical language
- To develop the ability to apply knowledge, skills and ideas in real life contexts outside the classroom, and become aware of the uses of mathematics in the wider world.
- To see how maths links with other curriculum areas
- To develop personal qualities such as perseverance, independent thinking, cooperation and self-confidence through a sense of achievement and success.

### Implementation

Maths is a core subject, given significant time on the timetable, with 5 lessons per week in every class, and Basic Skills sessions placed strategically throughout each week. Each area is progressive, with topics from the curriculum and skills identified and built upon year after year. The sequence of calculations in terms of size of number and complexity is also identified by year group. Children learn calculation methods, but then look at the inverse, see these applied in real-life situations, in problems including missing-box questions, and in open-ended investigations.

The concept of teaching mathematics to mastery is to ensure that topics are well developed. Pupils will spend enough time to fully explore a concept before moving on to a different topic. As ideas are well formed they are reinforced by ample practice. New knowledge is then used in subsequent lessons so that all ideas build on top of each other and pupils have ample opportunity to develop relationships between the topics. Ideas are revisited in a spiral as pupils progress through the years, each time at a higher level. This ensures that the children see maths in a wider context, in different formats and in increasingly complex forms. Links are made with other subjects and the maths used cross-curricular, is of an appropriate standard for the age group.

The subject is well resourced with practical materials, and children are expected to learn when and where to use these resources. Plus, they should, over time, identify which calculations need a practical tool for support; which should be completed using a formal method; and which should be done mentally or with jottings. Teachers use and emphasise mathematical vocabulary, and link the teaching to real-life situations, wherever possible.

Assessment takes place during every lesson, so that children are moved on quickly; at the end of a topic; and formally each term, to ensure that the children have achieved and continue to achieve. Support and intervention (for those who need it) is key in maths lessons, but the children are encouraged to work independently and strategically through their tasks.

## Impact

Mathematical confidence, with the ability to take on new challenges and yet draw on previous experience, ensures that the children are ready to face the mathematical realities of everyday life. The impact and success of maths teaching is seen in the high scores in test situations; the monitored progress of each child; the positive outcomes of the pupil voice questionnaires and interviews; and the children's independence in lessons.