**Maths- Intent, Implementation and Impact**

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| **INTENT** | **IMPLEMENTATION** | **IMPACT** |
| The national curriculum states *‘Mathematics is*  *an interconnected subject in which pupils need*  *to be able to move fluently between*  *representations of mathematical ideas.’*  Therefore, the intention for mathematics is to  ensure that all pupils become fluent, reason  mathematically and solve problems. *‘Pupils*  *should make rich connections across*  *mathematical ideas to develop fluency,*  *mathematical reasoning and competence in*  *solving increasingly sophisticated problems.’*  At St Mary’s Catholic Primary School, we teach our children how to make sense of the world  around them by developing their ability to  calculate, reason and solve problems. We want  our children to recognise and understand  relationships and patterns in numbers in the  world around them. We expect Mathematics  to be utilised as a tool beyond the daily  Mathematics lessons and beyond the  classroom.  At St Mary’s Catholic Primary School a typical Maths lesson will provide the opportunity for all  children as:   * Lesson objectives are taken from the National Curriculum statutory guidelines and activities are differentiated in order to allow all children to access the learning * Our children have access to high quality lessons that are both challenging and enjoyable. * We provide our children with a variety of mathematical opportunities, which will enable them to make the connections needed to enjoy greater depth in learning.      * We ensure children are confident mathematicians who are not afraid to take risks. * We fully develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement. * We make cross-curricular links with our termly topics, local area and current affairs. Through our Creative Curriculum, the teaching of Mathematics is extended beyond the daily Mathematics lesson. Links are made, where relevant and purposeful, between Topics and Mathematics. This allows children the opportunity to apply Mathematical skills and concepts, as well as enabling children to see that Mathematics is part of everyday life. | **Planning:** Lessons are planned and sequenced so that new knowledge and skills build on what has been taught before. Teachers loosely follow the White Rose Maths Hub materials, Termly Overview and Schemes of work to support their planning.  Staff also refer to the Calculation Policy when teaching formal methods, understanding that sometimes children find their own efficient methods along the way.  Until year 4, each week a Times Tables focus is planned to give children the opportunity to practise and improve their rapid recall skills with facts 12x12. Children enjoy the weekly challenge and strive to improve their time and score each week.  At St Mary’s Catholic Primary School, we employ a variety of teaching styles and opportunities for children to learn and develop their Mathematical skills and competencies, both individually and collaboratively. The main aim of all lessons is to develop children’s knowledge, understanding and skills, applying these to a variety of contexts. One of the key elements in lessons throughout the school should be on developing the children’s mental calculation strategies alongside developing the children’s written calculation strategies as laid out in the Written Calculation Policies for addition, subtraction, multiplication and division.  <https://www.ncetm.org.uk/resources/42990>  The progression maps are structured using the topic headings as they appear in the National Curriculum:  • Number and Place Value  • Addition and Subtraction  • Multiplication and Division  • Fractions (including decimals and percentages)  • Ratio and Proportion  • Measurement  • Geometry - properties of shapes  • Geometry - position and direction  • Statistics  • Algebra  Our pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.  **Concrete** – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.  **Pictorial** – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.  **Abstract** – With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.  **EYFS:**  All children in the Foundation Stage have daily opportunities to develop their mathematical understanding, primarily through play, to meet the needs of Development Matters. The 2 strands of Mathematics taught in the EYFs are Numbers and Shape, Space and Measure. | At St Mary’s Catholic Primary School, we expect that by the end of year 6 our children;  • become fluent in the fundamentals of mathematics  • reason mathematically by following a line of enquiry, conjecturing relationships and generalisations  • solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication.  In order for this to happen, the Mathematics leader, the Headteacher and the Senior Leadership Team take responsibility for the monitoring of the Mathematics curriculum and the standards achieved by the children. The Mathematics leader will monitor for appropriate pitch and progression at least once every half term.  This monitoring takes the form of:  1. lesson observations and feedback;  2. learning walks and pupil voice conversations;  3. planning scrutiny followed by support where necessary;  4. book scans on a frequent basis;  5. termly data analysis;  6. moderation with other local schools to ensure each school has the same standards.  Data is collected termly and reported to SLT. All teachers should identify the pupils who are not making sufficient progress when the data is analysed and subsequently targets are made by highlighting these pupils and focusing on next steps. |