Maths

Our Intent for our Maths curriculum:

Our maths curriculum encompasses all areas of the National Curriculum for Mathematics outlined by the Department for Education. We believe that every pupil should have the opportunities to be challenged to achieve their very best in maths and how learn how mathematical concepts interlink. Pupils will become articulate mathematicians, who are able to build upon prior knowledge and demonstrate understanding by explaining and reasoning their decisions. Primary mathematics prepares pupils for life in the wider world by developing secure, mathematical foundations. In life, pupils will become solely responsible for their time-keeping, personal finance and problem-solving, which is essential in everyday life. Our vision is to equip the pupils of the Magdalen School with the understanding and skills, giving each of them the confidence to solve problems, develop reasoning skills and employ mathematical thinking. Consequently, this will improve our pupils' chances of employment and positively impact upon their social mobility.

Our Implementation of Mathematics in the Magdalen CoE/Methodist Primary:

Curriculum:

This year at the Magdalen CoE/Methodist Primary we have transitioned to using a Teaching for Mastery approach, underpinned by the coherent curriculum design created by Maths No Problem.

Lessons:

Lessons are structured in two parts, a short fluency session and a maths lesson.

- Fluency sessions are dedicated to developing automaticity with number facts, therefore providing children with the knowledge to flexibly apply between different contexts and representations of mathematics.

Maths lessons are underpinned by the Teaching for Mastery's Five Big Ideas and Rosenshine's Principles of Instruction.

- Lessons are structured carefully to ensure small steps of learning through explicit teacher modelling, guided practice, partner work and independent practice.
- Concrete and pictorial representations are used to expose the mathematical structure being taught, supporting children to develop conceptual understanding.
- Lessons have carefully sequenced questions in order to expose conceptual variation, allowing children to not only understand what a concept is, but what a concept isn't and draw attention to procedural variation, to allow children to develop deeper mathematical thinking.
- Lessons are not differentiated by task. Children that require more support access greater scaffolding through representations, adult support, pre-teaching or post-lesson intervention.

Children who grasp new concepts quickly, deepen their understanding through greater challenge.

- Children's mathematical vocabulary is developed by precise mathematical vocabulary, teacher instruction, stem sentences and whole class chorusing.

Lesson structure and Rosenshine's Principles of Instruction					
Daily recap inc. Fluent in Five	Anchor Task		Guided Practice	Independent Practice	Review
	In Focus	Let's Learn			
Principle 1 - Daily review Principle 10 - Weekly and monthly review	Principle 2 – Present new material in small steps	Principle 2 – Present new materials in small steps Principle 3 - Ask questions Principle 4 - Provide models	Principle 5- Guide student practice Principle 4 – Provide models Principle 3 - Ask questions Principle 6 - Check student understanding Principle 8 - Scaffold difficult tasks	Principle 9 - Independent practice Principle 6 - Check student understanding Principle 7 - Obtain high success rates Principle 8 - Scaffold difficult tasks	Principle 6 - Check student understanding Principle 7 - Obtain high success rates

Assessment:

Formative assessments are ongoing within the classroom to assess prior knowledge and continually monitor children's progress to provide support to ensure that every child achieves.

Summative assessments take place three times per year using the Rising Stars PUMA assessments and provide standardised scores to closely monitor each child's progress and the progress of structured intervention groups. This enables leaders to effectively monitor the progress of each class and the impact of interventions delivered.

The impact of our Mathematics Curriculum:

By the end of the Early Years Foundation Stage, children have a deep understanding of numbers to 10, understanding the relationships and patterns between them and the composition of each number. Children will have explored shape, space and measure and developed their spatial reasoning.

By the end of Key Stage One, children have developed fluency with whole numbers, counting and place value, involving the four operations and know and apply number bonds to 20. Children can describe, draw, compare and sort shapes and describe and compare a range of measures such as length, mass, capacity, money and time.

By the end of Key Stage Two children have extended their understanding of the number system and place value to include larger integers. They have developed connections between multiplication and division with fractions, decimals, percentages and ratio. Children can solve a wider range of problems, selecting efficient strategies for written and mental methods of calculation and be competent working within all strands of mathematics.

When our children leave the Magdalen School CoE/Methodist Primary, they will have long-term knowledge and mathematical understanding for application in future contexts, in order to increase chances of employment and positively promote social mobility.