



Maths LTP



Intent

At MRA, we believe the habits of thinking mathematically are life-enriching. Our Maths curriculum has been designed on principles to provide learners with a deep understanding of the subject and to be able to articulate underlying mathematical structures. Our curriculum ensures that every child has a rich and meaningful mathematics education. It is designed to enable pupils to master mathematical topics to ensure they deepen their mathematical knowledge and enables children to apply mathematical methods and concepts to new contexts and situations. Through our curriculum, pupils develop fluency in arithmetic which means they can rapidly recall number facts to solve more complex problems. They recall prior mathematical knowledge daily and build on the skills and methods learnt across previous years. Our curriculum is language rich, to ensure pupils can articulate their mathematical thinking and through this, deepen their learning further. Through our curriculum, pupils learn the importance of maths, not just within maths lessons but to their wider life.



Implementation

The Mathematics Mastery programme is used to deliver our maths teaching. The Maths Mastery programme is carefully sequenced to enhance pupils' understanding of maths. It is underpinned by the Dimensions of Depth, which address conceptual understanding, language & communication and mathematical thinking. These support mathematical problem solving and enable pupils to make connections between topic areas, draw on representations to support their thinking and be prepared to articulate, justify and explain their thinking. 'Maths Meetings' take place daily and are an opportunity for pupils to consolidate and recall their prior knowledge in an engaging way. Providing integrated, consistent professional development, is at the heart of Maths Mastery programme which supports our teachers to improve student outcomes. Fluent in Five and Timestable Rockstars are used alongside Maths Mastery to enhance our maths curriculum, ensuring progression in fluency, reasoning and problem solving. In EYFS, opportunities are provided for pupils to develop their mathematical thinking and consolidate prior learning within the continuous provision inside and also outside. Mathematical vocabulary is used consistently across the school to ensure children can confidently articulate their mathematical thinking and are able to build and develop their mathematical vocabulary.



Impact

Through our maths curriculum, pupils can make connections between topic areas, draw on representations to support their thinking and are prepared to articulate, justify and explain their thinking. 'Maths Meetings' result in an excellent start to the day, where pupils are focused, engaged and thoroughly enjoy recalling their maths knowledge. Pupil voice has highlighted that children thoroughly enjoy the Maths Meeting. Through our curriculum, pupils can rapidly recall number facts and are confident with the timetables appropriate to their age group. Pupils are confident using concrete manipulatives to support their mathematical thinking and can use pictorial representations to support their learning. Pupils are then able to use abstract representations and methods to solve problems and are taught a range of methods to solve equations so that they can select the most appropriate method to solve mathematical problems.



Progression

Our maths curriculum is cumulative, building on learning and allowing pupils to make deep connections across topics. Concepts are sequenced so that established ideas can be linked to new learning, supporting pupils in developing mastery by understanding the coherent and connected nature of the subject. Maths lessons are carefully sequenced to allow for progression across the lesson. The 'New Learning' feeds into the 'Talk Task' where children can practise a new skill. The 'Develop Learning' then moves the children on further so they can apply their new learning to the 'Independent Task'. Pupils first learn a new mathematical concept through concrete materials, when this is understood they move on to a pictorial representation, and eventually extend their understanding to include abstract forms. Children progress from using basic concrete resources such as Numicon to more complex concrete resources such as Cuisenaire rods. Representing ideas in different forms helps to deepen their understanding and enable them to apply ideas and skills in different contexts.



Enrichment

Pupils have access to high quality, concrete resources which enhances their mathematical learning. Through our links with West Ham United, pupils learn how maths is important in society and, in particular, how maths is important within sport. Pupils have opportunities to take part in Timestable Rockstar competitions across the year where they compete internally across MRA and externally, against other primary schools.



Maths LTP Unit Map



Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Unit 1: Early Mathematical Experiences Unit 2: Pattern and Early Number	Unit 3: Numbers within 6 Unit 4: Addition and Subtractions within 6 Unit 5: Measures Unit 6: Shape and Sorting	Unit 7: Numbers within 10 Unit 8: Calendar and time Unit 9: Addition and subtraction within 10 Unit 10: Grouping and sharing	Unit 10: Grouping and sharing Unit 11: Number patterns within 15 Unit 12: Doubling and halving Unit 13: Shape and pattern	Unit 14: Securing addition and subtraction facts Unit 15: Number patterns within 20 Unit 16: Number patterns beyond 20	Unit 17: Money Unit 18: Measures Unit 19: Exploration of patterns within number
Year 1	Unit 1: Numbers to 10 Unit 2: Addition and Subtraction within 10 Unit 3: Shape and Patterns	Unit 4: Numbers to 20 Unit 5: Addition and Subtraction within 20	Unit 6: Time Unit 7: Exploring calculation strategies within 20 Unit 8: Numbers to 50	Unit 9: Addition and subtraction within 20 (comparison) Unit 10: Fractions Unit 11: Measures: Length and Mass	Unit 12: Numbers 50 to 100 and beyond Unit 13: Addition and subtraction (applying strategies) Unit 14: Money	Unit 14: Money Unit 15: Multiplication and division Unit 16: Measures: Capacity and volume
Year 2	Unit 1: Numbers within 100 Unit 2: Addition and Subtraction of 2-digit numbers Unit 3: Addition and Subtraction word problems	Unit 4: Measures – Length Unit 5: Graphs Unit 6: Multiplication and division: 2,5,10	Unit 7: Time Unit 8: Fractions Unit 9: Addition and subtraction of 2-digit numbers (regrouping and adjusting)	Unit 10: Money Unit 11: Faces, shapes and patterns; lines and turns	Unit 12: Numbers within 1000 Unit 13: Measures: Capacity and volume Unit 14: Measures: Mass	Unit 15: Exploring calculation strategies Unit 16: Multiplication and division: 3 and 4
Year 3	Unit 1: Number sense and exploring calculation strategies Unit 2: Place Value Unit 3: Graphs	Unit 4: Addition and subtraction Unit 5: Length and perimeter	Unit 6: Multiplication and division Unit 7: Deriving multiplication and division facts	Unit 8: Time Unit 9: Fractions	Unit 10: Angles and Shape Unit 11: Measures	Unit 12: Securing multiplication Unit 13: Exploring calculation strategies and place value
Year 4	Unit 1: Reasoning with 4-digit numbers Unit 2: Addition and subtraction	Unit 3: Multiplication and division Unit 4: Interpreting and presenting data	Unit 5: Securing multiplication facts Unit 6: Fractions Unit 7: Time	Unit 8: Decimals Unit 9: Area and perimeter	Unit 10: Solving measure and money problems Unit 11: 2-D Shape and Symmetry	Unit 11: 2-D Shape and Symmetry Unit 12: Position and Direction Unit 13: Reasoning with patterns and sequences Unit 14: 3D Shape
Year 5	Unit 1: Reasoning with large whole numbers Unit 2: Problem solving with integer addition and subtraction Unit 3: Line graphs and timetables	Unit 4: Multiplication and division Unit 5: Perimeter and area	Unit 6: Fractions and decimals Unit 7: Angles	Unit 8: Fractions and percentages Unit 9: Transformations	Unit 10: Converting units of measures Unit 11: Calculating with whole numbers and decimals	Unit 12: 2-D and 3-D shape Unit 13: Volume Unit 14: Problem solving
Year 6	Unit 1: Integers & Decimals Unit 2: Multiplication and division	Unit 3: Calculation problems Unit 4: Fractions Unit 5: Missing angles and length	Unit 6: Coordinates and shape Unit 7: Fractions Unit 8: Decimals and measures	Unit 9: Percentages and statistics Unit 10: Proportion problems	Consolidation	Consolidation