

EMP CURRICULUM AT A GLANCE

Maths in Early Years

Mathematics in the Early Years Foundation Stage focuses on building foundational concepts through hands-on experiences and play-based activities. Children explore numbers, shapes, patterns, and measurements through games, puzzles, and manipulatives to develop their understanding of mathematical concepts. Teachers encourage counting, sorting, matching, and exploring mathematical ideas in everyday situations to support a strong mathematical foundation.

Inclusion

We take a mastery approach to the teaching of mathematics at East Morton CE Primary; a key part of this methodology is that all learners engage in all aspects of our curriculum. Where required, lessons and resources may be adapted and scaffolded to ensure that every learner can access every aspect of our wide ranging, challenging and engaging mathematical offering.

Maths at East Morton: Intent

At East Morton CE Primary, we believe that our carefully sequenced Maths syllabus provides our learners with 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. Through a varied offering of arithmetic, reasoning and problem-solving activities we develop confident and inquisitive mathematicians who enjoy challenge and are constantly developing their resilience and independence.

Our learners are supported in the development of their mathematical thinking with carefully structured, engaging lessons based on National Curriculum objectives, precise and personal feedback processes and a focus on identifying and celebrating best practice.

Assessment

Our assessment of progress in mathematics is robust to ensure that all children make the required level of progress. At the start of the unit, children complete a 'pre-learning' assessment which identifies what they already know about the unit being taught. At the end of the unit, a 'post-learning assessment' is completed and each child details their own improvement. Both pre and post-learning assessments are marked to give the children positive feedback and next steps. Any child who has not made expected progress is quickly identified and interventions are put in place to ensure the knowledge gaps are filled. Any child who has not made expected progress is quickly identified and interventions are put in place to ensure the knowledge gaps are filled.

Maths Curriculum Implementation

Teaching Sequence: We employ a mastery approach to the teaching of maths. A high expectation of all children is predominant in lessons and teaching is intended to ensure that all learners master age-appropriate key skills and concepts. Lessons are informed using the pre-learning assessment. Children will access the resources at the correct starting point e.g. fluency/further fluency/reasoning and problem solving. For those children who start on fluency questions, they will complete one reasoning/problem solving question in the plenary to ensure that they have adequate exposure to these questions. Some children may move more quickly to reasoning and problem solving as they have already acquired the skills required for the unit.

Domains such as Place Value, Addition & Subtraction and Multiplication & Division are at the centre of our teaching. Number sense, the ability to calculate mentally and on paper, as well as the ability to reason and solve problems are all key areas of focus. Units of work containing these domains may form the main focus of the teaching and learning time, particularly during the Autumn term.

Concrete resources are used throughout school to develop conceptual understanding. Equipment is not used as a tool to 'find the solution', but as a way to explain it.

Problem solving is recognised as a vital aspect of maths teaching, helping to build resilience, link making, strategic working as well as many other valuable skills. 'Grappling' style tasks, where challenging problems are presented to children, are used to build independence, resilience and to encourage wider application of skills and knowledge already learnt. Care is taken to build a climate of positivity, enthusiasm and determination around tackling tricky challenges.

Marking and feedback: Children's mathematical development is scaffolded by our CFU/ challenge and marking and feedback approaches. These approaches are linked and ensure that each child's journey is tailored to meet their specific requirements. The class teacher conducts a 'book check' after each lesson which enables them to group children into those who have achieved that day's objectives and those that require extra support. This allows the children to be put into the correct group. Those who achieved the objectives complete a challenge designed to deepen their understanding of the concept being taught. Those who were identified as requiring extra support are put into one of several 'CFU' (class follow up) groups. These groups are given some further input and an activity based on achieving the objectives from the previous day. The fact that these groups are smaller, enables each child to be given some one-to-one time with an adult to help them achieve the objectives.

Arithmetic: Our teachers are expected to include an element of arithmetic in every lesson as well as a discreet mental maths lesson timetable for KS2. This may include an 'estimate, calculate, check' sequence to support children to understand if they have the correct answer, fluency four style question showing efficiency with all four operations or retrieval from a previous mental maths strategy.

Times tables: Excellent times table knowledge and instant recall of related facts is essential to efficient calculation methods – both mental and written. In recognition of this, and in preparation for, the year 4 times table check, we explicitly teach the times tables to the appropriate year groups and allow them ample time to practice and apply their understanding.

Counting: We understand the importance of our learners developing a fluency of number and an important way to do this is through counting. We regularly count with our children in a variety of age-appropriate ways.

Mental methods: Efficient mental methods are a key requirement for fluency in mathematics and within KS2 each class have an additional mental maths lesson timetable where a discreet method is taught and then practiced. Each class has a visual representation of the relevant methods on the working wall.

Vocabulary: There are three main ways in which children's failure to understand mathematical vocabulary may show itself: children do not respond to questions in lessons, they cannot do a task they are set and/or they do poorly in tests. In order to avoid these, we teach the vocabulary for each unit. See mathematical vocabulary document.

Associated Documents: Curriculum Learning guide and Year Group Long Term Plans

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2022 Report (GOOD)

"Pupils love mathematics. They are proud of what they achieve and want to show off their work. Mathematics is a strength of the school. Pupils know and remember what they have learned in their lessons. This is because leaders have identified and ordered the knowledge that they want pupils to learn. Pupils have frequent opportunities to practise arithmetic and achieve well."

Times Tables Rock Stars



MATHS



Enhancement

Using mathematical skills and language in a wide range of contexts is key to the development of successful mathematicians. We therefore encourage as much cross curricular maths activity as possible in order to give our learners a true sense of the relevance of mathematical skills as well as an awareness of how mathematics underpins many other aspects of the curriculum. For example:

- Recording the results of investigations using data tables and / or graphs (Science)
- An investigation of religious affiliation in our local area – calculating percentages and drawing pie charts (RE)
- Calculating distances – lengths, width, depths of rivers, seas and oceans (Geography)

Impact

- know more, remember more and understand more about Maths
- demonstrate a rapid recall of facts and procedures including key facts and multiplication tables
- show confidence in their ability to achieve in maths
- have the flexibility and fluidity to move between different contexts and representations of maths
- develop the ability to recognise relationships and make connections in maths lessons, deepening and consolidating their understanding of key concepts
- show mastery of mathematical concepts or skills and can show it in multiple ways, using mathematical language to explain their ideas
- understand the importance of and differences between their reasoning and problem-solving skills
- The majority of learners will achieve or exceed age related expectations in Maths