

Mathematics Curriculum

Intent, Implementation & Impact



Intent

Our Mathematics curriculum is designed with the intent that all children will become competent mathematicians, equipped with the required maths skills to thrive in later life. We foster positive 'can do' attitudes and believe that all children can achieve in mathematics. It is our aim for children to become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. We intend for children to be able to solve problems by applying their mathematics to a variety of problems with increasing sophistication. It is our goal that all children will be able to reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.

Implementation

To ensure high standards of teaching and learning in mathematics, we implement a curriculum that is progressive throughout the whole school. Great importance is placed upon mathematics as it is an area of knowledge that children will require throughout their lives.

Mathematics is taught on a daily basis, with sequences of lessons planned for every unit of work. Long term plans identify the duration of time that each unit needs to be the focus for each year group. These plans also ensure that every unit of work is revisited each term in order for prior learning to be embedded and developed to ensure children are secure in their knowledge and understanding by the end of the academic year. Medium term plans outline the progressive sequence of lessons over each unit of work; these are used by teachers when creating short term planning, which identifies adaptations for different pupil groups to ensure every child's needs are catered for. Year group staff also refer to the Age-Related Expectations (Progression of Knowledge and Skills document) and calculation policies when planning to ensure work is pitched at an appropriate level. This ensures full coverage of the National Curriculum objectives and a logical progression in the knowledge and skills taught year upon year.

Mathematics lessons begin with an Oral Mental Starter. These provide daily opportunities for children to practise previously taught concepts and to further embed their knowledge and understanding. Previous days learning is recapped and built upon in lesson introductions, during which pupil engagement is essential. Various strategies are used to ensure children are active learners throughout lessons, such as paired and group discussion, small whiteboard work and pupil participation in interactive whiteboard work.

We believe that all children should be provided with the equal opportunity to access the same level of work. Therefore, pupils begin their independent task with an activity pitched at all children. Scaffolds are put in place for those pupils who require additional support to access the learning, while pupils working well-below age-related expectations are provided with activities appropriate for their level in order for them to further progress. Staff continually assess pupils' progress throughout the lesson and quickly identify when pupils are ready to move on in their learning. Staff strive to challenge pupils and deepen their understanding through the application of their mathematical knowledge and understanding in different contexts, including open ended questions, problem solving and reasoning tasks.

Staff are effective at identifying pupils who have found learning particularly challenging on a day-to-day basis and arrange for them to receive 'fast response' intervention by a member of staff before the following day's mathematics lesson. In addition, staff use both formative and summative assessments to identify pupils who would benefit from participation in weekly intervention groups to develop their knowledge and understanding of concepts and therefore, improve the progress they make in mathematics.

Multiplication tables are of great importance at Elston Hall and learners' progress is valued and celebrated. The Superhero Times Tables scheme has been carefully developed for pupils in Years 2-6, with learners taking part in individual challenges against the clock progressing through the times tables system and improving their speed and accuracy. This is built alongside quality teaching following the carefully developed Times Table Overview, ensuring progression throughout the key stages. Times Tables Rockstars also allows learners regular practice in a safe but individually competitive environment.

- * 2023-2024: Year 1 and Year 4 undertaking Maths Mastery.

- ** 2024-2025: Years 1 – 5 undertaking Maths Mastery with Reception following Mastering in Number.

Impact

Learners will make progress over time, from Early Years to the end of Key Stage 2, achieving Age Related Expectations. Clear, progressive calculation policies and planning systems including monitoring will enable teachers to organise and deliver high quality lessons ensuring all pupils can have the opportunities to achieve in all areas of mathematics. During the learning process, learners will develop their independence and realise the value of mistakes in the learning process showing perseverance to overcome more complex mathematical challenges and succeed. Learners will develop and embed a range of number calculations including fractions, decimals and percentages enabling them to use formal written methods accurately as well as developing their mental strategies. They will be able to use these skills in everyday life situations confidently resulting in learners becoming confident, fluent young mathematicians equipped with the skills to answer a range of mathematical questions and set them on the right path to continue their mathematical journey into secondary school and beyond.