

Mathematics Curriculum Intent, Implementation, Impact

Intent



Maths is a skill we use on a daily basis and is an essential part of everyday life; therefore, mathematics forms an important part of our broad and balanced curriculum where we endeavour to ensure that children develop an enjoyment and enthusiasm for maths that will stay with them throughout their lives and empower them in future life. We believe that unlocking mathematical fluency is an essential life skill for all learners and is a pre-requisite to being able to reason and solve problems mathematically. Our aim is to develop a positive culture of deep understanding, confidence and competence in maths that produces strong, secure learning and a 'can do', resilient attitude in all of our pupils.

As a school, we recognise that the key to unlocking the potential in our children is through the development of basic mathematical skills and the understanding of mathematical concepts. We therefore place great emphasis on the use of concrete resources and pictorial representations at all ages, to enable children to fully understand the concepts and principals, when presented with abstract calculations and questions. Our maths curriculum is progressive and is designed to develop competencies which equip pupils for life.

The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

Implementation

- Daily maths lessons taught to a high standard
- Differentiated activities to allow all pupils to access and achieve success in lessons
- Interventions planned and delivered effectively for any pupils identified as falling behind
- Regular assessment opportunities planned and used to inform future planning
- Weekly maths lessons to include a balance of number, place value, reasoning and wider maths skills
- Problem solving and reasoning skills taught discretely once per week in all classes
- Quality resources used effectively to support the delivery of key concepts e.g. Numicon, plastic coins etc
- Opportunities provided for independent practice using motivational resources e.g. TTRockstars, Education City

Impact

By the end of Year 6, transitioning to secondary school, we aspire that an Aston Fence mathematician will have developed a bank of efficient and accurate skills that can be used to

calculate effectively. Children will be able to apply these calculation skills and understanding of other areas to become confident and resilient problem-solvers with the ability to reason and articulate their ideas mathematically.

Pupils should:

- talk positively about their experiences of maths in school
- attain in line or higher than their peers at a local and national level
- make good progress over the year and between key stages
- be able to apply their maths skills in order to independently solve a range of problems in a variety of contexts