

Booker Avenue Infant School: Maths Vision

Intent – What is our curriculum aspiring to achieve?

At Booker Avenue Infant School, it is our intent to provide an engaging, relevant and challenging curriculum, which allows our children to become enthusiastic, motivated and confident when using Maths across the curriculum and in the real world. We believe all children can enjoy and succeed in Maths. We want our learners to be:

- Analytical – able to spot similarities and differences
- Critical – able to identify problems and mistakes
- Problem Solvers – resilient enough to approach a problem in different ways
- Inquisitive – want to know why and how things work
- Efficient – able to select and use appropriate strategies to solve problems quickly

Our Maths curriculum develops children into fluent mathematicians, able to solve mathematical problems, and able to reason confidently using mathematical language. We understand the importance of building a fluid and fundamental knowledge base for all children, and our Mastery approach to Maths means that we are teaching children to have a deep conceptual understanding, rather than teaching just so that children can get a correct answer. Being able to explain how an answer is calculated, why that answer is correct, and what might happen if a particular variable was changed are the foundations of a good mathematician. We believe that all children are able to succeed mathematically, and that one of our primary tasks as maths teachers is to find ways of presenting, scaffolding, and teaching concepts in such a way that everyone will achieve.

Links within other subjects will be highlighted, and skills and mathematical knowledge will be applied. Our children will have opportunities to use and develop accurate vocabulary and we will plan for talk opportunities. We will ensure children are equipped with the foundations of mathematics, that are essential to everyday life.

Implementation – What do we do to deliver our intent?

High standards in teaching and learning are produced by:

- Reflective staff with excellent subject knowledge who evaluate their teaching and the curriculum regularly, and are open to feedback and change. – All staff have a deep understanding of how pupils learning which enable them to plan learning tasks exceptionally well
- Time to master key skills and gain a strong subject knowledge and understanding; ensuring skills are put into practice
- High levels of challenge
- Strong focus on vocabulary and high standards of oracy
- Stimulating classroom environments which provide support and encourage independence

- High standards in Maths are produced by:
- Following a Mastery approach with high expectation for all pupils (keep up not catch up)
- High quality daily Maths lessons which ensure pupils are competent in fluency, problem solving and reasoning
- Dynamic teacher interventions where any misconceptions of previous learning informed by feedback and assessment

In EYFS and Key Stage one, we follow the Maths Masters scheme. In EYFS, this allows us to provide our children with many exciting opportunities, through a mix of adult-led and child-initiated activities. This is in order to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems; and to describe shapes, spaces and measure.

In Key Stage One, our carefully chosen scheme allows all children to become confident in every area of the Maths curriculum. Our curriculum provides the opportunity for all children to develop competency in each topic as they are taught, developing knowledge needed to encourage problem solving and mastery skills. Manipulatives and representations support the children to gain a deeper conceptual understanding, before being challenged through tasks and questions to explain their reasoning and solve a range of problems

We know children are at different parts of their Maths journey, and we will provide them with the skills and materials needed to progress through the three stages:

- Concrete – Children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.
- Pictorial – Children build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems by using some known key facts and fundamental knowledge to support calculations.
- Abstract – With foundations in place, and a firm and fluid fundamental knowledge laid, children can move to an abstract approach using number and key concepts with confidence.

We operate a fluid grouping system within each classroom where children will be moved as and when necessary in order to meet the needs of each individual child. This grouping is based on teacher assessment throughout lessons.

Impact – How do we ensure that children are learning?

The children will:

- Be happy and confident mathematicians
- Have a positive attitude towards the learning of mathematics and an enthusiasm for the subject
- Be able to carry out practical activities involving number, measurement, estimation and calculation

- Be able to use Maths in everyday and cross-curricular situations
- Be able to read and record mathematical statements using correct terminology and symbols
- Have an ability to solve problems, to reason, to think logically and to work systematically and accurately

We will make sure that children are learning and achieving in every Maths lesson. Assessment in Maths takes place daily, using a range of strategies such as marking, feedback of work, and verbal discussions with children.

In Key Stage 1, assessment of learning is formally completed after each teaching block, and at the end of each term. We use assessments from Maths Masters. We consider the related intended learning, recognise children who are working at or beyond the expected level for Key Stage 1, as well as identifying the children who need, and who will therefore receive support. Children in the Foundation Stage will be assessed against the Early Learning Goals at the end of Reception.

Maths monitoring includes work scrutinies, lesson observations and learning walks, and pupil voice questionnaires in order to establish the curriculum coverage, the quality of teaching and learning, and also the attitude of all children towards Maths learning. This information is used to inform future planning, and provision is adapted accordingly.