

Kenn and Kenton Federation

Maths Statement of Intent

Statutory Framework for the EYFS and the National Curriculum Intent

The Statutory Framework for the EYFS states that:

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

The National Curriculum for mathematics intends to ensure that all pupils:

1. 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.
2. Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
3. 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. Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas.

Intent

Here at Kenn and Kenton we take a maths mastery approach to teaching and learning mathematics. We teach the National Curriculum, supported by a clear skills and knowledge progression starting in EYFS, centred around the EYFS Statutory Framework and Development Matters (2020). Our EYFS and Years 1-6 maths progressions are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

We believe that all children can be successful in the study of mathematics. Our intent is for every child to gain mastery of the primary maths curriculum and for children to become confident, resilient mathematicians; well equipped to become successful in their future adventures. We aim to prepare them for a successful working life.

Implementation

Learning is coherently sequenced in order for children to progress through their mathematical journey.

Our mastery approach ensures that children spend far longer on fewer key mathematical concepts whilst working at greater depth. In Reception, progressions are based on those of the Ncetm and from Year 1 to Year 6, the Ncetm spines. Staff are aware of KS3 subject expectations in order to understand where children's Maths learning is heading.

The large majority of children progress through the curriculum at the same pace. However, we do adapt these plans to suit the needs of our individual children and year groups (including SEND and more able). Interventions pre and post teaching ensure children are equipped to make the most of class teaching. Power Maths, White Rose and Nrich resources are used to support maths teaching. DfE/Ncetm KS1 and 2 Ready to Progress Criteria are used to assess and inform planning.

Maths lessons are taught daily, according to the needs of their year group. Formative assessment plays an important role in ensuring that all children are exposed to the right level of mathematics, with opportunities to go 'deeper' into a concept for those who have grasped the initial structure of a concept.

We create a vocabulary rich environment, where talk for maths is a key learning tool for all pupils and gives them the confidence to explain mathematically.

Staff provide opportunities for our pupils to develop a deepened understanding for mathematics, to become fluent with the fundamentals of mathematics, to reason mathematically and solve problems. Maths is taught across the curriculum ensuring that skills taught in these lessons are applied in other subjects and real life opportunities such as role play, the Virgin Money Challenge and school fundraising events.

As a staff, we continuously strive to better ourselves and frequently share ideas and strategies that have been particularly effective. We ensure staff have a secure understanding of maths mastery teaching through continued professional development opportunities.

Staff ensure teaching promotes a growth mindset and enables all children to achieve in and enjoy mathematics.

Formative assessment takes place in every lesson and is an integral component to our mastery approach. Staff utilise carefully crafted questions to assess and challenge our children. Prerequisite and summative assessments take place at key points in the year within our school's monitoring and evaluating cycle.

Impact

Pupils have a curiosity and a 'can do' attitude to achieve and enjoy mathematics.

Children show confidence and believe they can learn about a new maths area and apply the knowledge and skills they already have.

Knowledge and skills - Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential.

Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

Our pupils are able to show mastery; that they really understand a mathematical concept, idea or technique when they can:

- describe it in their own words
 - represent it in a variety of ways (e.g. using concrete materials, pictures and symbols)
 - explain it to someone else
 - generalise
 - make up their own examples (and non-examples) of it
 - see connections between it and other facts and ideas
 - recognise it in new situations and contexts
 - make use of it in various ways, including in new situations
-
- demonstrate a quick recall of facts and procedures, including the recollection of times tables

Subject leaders monitor impact through conferencing with children. Through discussion and feedback with children, children talk enthusiastically about their maths lessons and speak about how they love learning about maths. They can articulate the context in which maths is being taught and relate this to real life purposes. Subject leaders also monitor through lesson observations, book scrutinies and data analysis.

Ultimately, we ask our children to ***be mathematical*** rather than to simply ***do mathematics***.