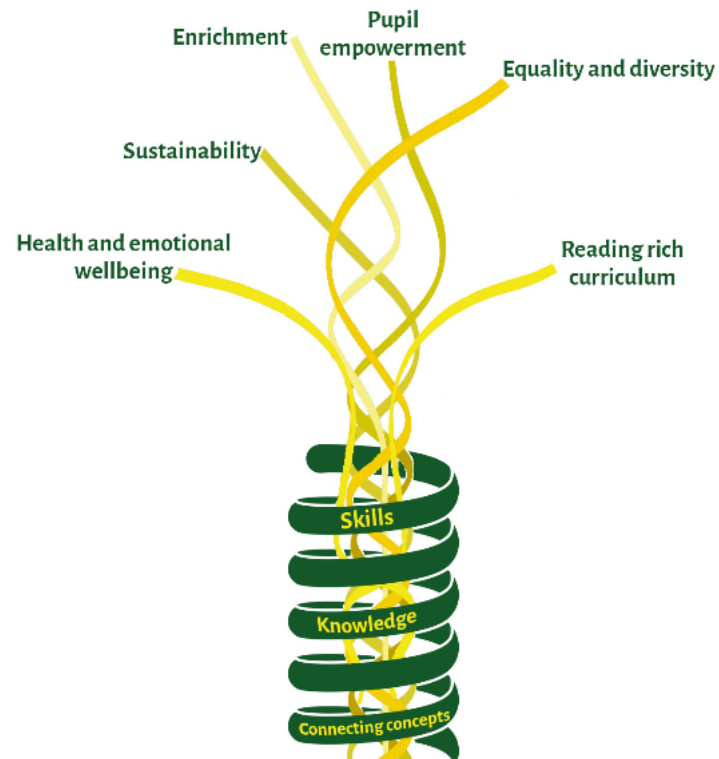




Maths at Kenton Primary School



Our Golden Threads



Maths Intent

“Without mathematics, there’s nothing you can do. Everything around you is mathematics. Everything around you is numbers.”- Shakuntala Devi

Here at Kenton, we take a maths mastery approach to teaching and learning mathematics. 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, curious mathematicians; well equipped to become successful for their future adventures. We aim to prepare them for a successful working life.

Maths Implementation

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 (2021). Our EYFS and Year 1-6 maths progressions are, by necessity, organised into distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

Learning is coherently sequenced 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 NCTEM and from Year 1 to Year 6, White Rose Maths Scheme.

Staff follow the White Rose Maths Scheme in Year 1-6 and in Reception, they follow Mastering number by NCTEM. Daily lessons develop oral and mental calculation, and include direct teaching and activities for pupils, either in whole class, groups, pairs or individually. Teachers adapt these plans to suit the needs of our individual children and year groups (including SEND and more able). Lessons begin with a recap of previous learning. During lessons, teachers follow a concrete, pictorial and abstract approach when introducing new concepts and will model using ‘I do, we do, you do’. Lessons conclude with a plenary which can summarise learning, check misconceptions or target further learning. Teachers encourage the use of ICT, games and problem solving to help children understand and apply new concepts.

We strive to create a vocabulary rich environment, where talk for maths is a key learning tool for all pupils and gives them confidence to explain mathematically, through using STEM sentences. Children are provided with opportunities to develop a deepened understanding for mathematics, to become fluent with the fundamentals of mathematics, to reason mathematically and to solve problems. Maths is taught across the curriculum ensuring that skills taught in these lessons are applied in other subjects and real-life opportunities.

Staff feel confident to teach and have excellent subject knowledge and understanding of teaching maths, through staff training and shared knowledge and experience. The best quality of education is ensured throughout Key Stages through effective termly monitoring of books, learning walks and pupils and teacher voice.

Maths Impact

Across the school year, lesson observations, incremental coaching and learning walks take place and evidence that teachers provide a broad and balanced maths curriculum. Teachers are using the WRM scheme, our long-term plan and progression of skills document to ensure children’s prior knowledge is taken into account and developed upon. Book scrutinies show that children can demonstrate that they are acquiring key knowledge and skills. Pupil voice reflects the growing mathematical understanding, use of vocabulary and use of STEM sentences and shows a great enthusiasm for the subject.

At the beginning and end of each unit, assessments are completed to inform teaching and to show progression within the unit. Additionally, at the end of each term, assessments are used to show what learning has been retained from that term and will identify gaps in learning that teachers can act upon. Teachers will use their judgements throughout the year to continuously

update target tracker to assess what pupils have achieved and what areas within maths they are still working on. This data will be used by the maths lead and further interventions, coaching and CPD may be put in place if necessary. Analysis by the subject leader enables a consistent approach to maths teaching across the school and this is supported through monitoring of children's books, pupil conferencing and through termly conversations with children.

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 or symbols)
- Explain it to someone else
- Generalise
- Make up their own examples
- See connections between it and other facts and ideas
- Recognise it in new situations and contexts
- Make use of it in various ways, including new situations
- Demonstrate a quick recall of facts and procedures, including the recollection of times tables

Meeting the needs of our disadvantaged children, including Children Looked After, those eligible for Pupil Premium funding and those with SEND

Statement about how your subject does this.

At Kenton Primary School, we want all children to be successful within mathematics learning. Within maths, we follow a concrete, pictorial and abstract method of teaching to support all learners to develop a clear conceptual understanding, before using this procedurally. Adaptations are made to the lessons being taught based on the needs of the children. Teachers deliver content and provide scaffolding for individuals. We aim to reduce the barriers to learning through using manipulatives, targeted questions, carefully teaching vocabulary and using STEM sentences to support developing oracy and showing maths understanding. Alongside this, gaps in learning are addressed, either through quality first teaching, pre-teaching or interventions. Throughout the year, we aim to have maths days to celebrate and develop a passion for problem solving, reasoning and fluency, which gives our disadvantaged children the opportunity to develop their depth of understanding, apply their knowledge and broaden their vocabulary. We have a real focus on Times Table Rocks Stars to support quick recall of our times tables to support in our lessons. Additionally, we complete daily retrieval activities to continue to keep previous learning and the forefront of our working memory.

What Maths is taught at Kenton?

This is an overview of what the year groups will cover in our 2-year rolling programme.

	FIRST HALF TERM			SECOND HALF TERM		
Autumn term Y1	Place value	Addition and subtraction		Addition and subtraction	Shape	
Y2	Place value	Addition and subtraction		Addition and subtraction	Shape	
Spring term Y1	Place value (within 20)	Addition and subtraction (within 20)		Place value (within 50)	Length and height	Fractions
Y2	Money	Multiplication and division		Time	Length and height	Fractions
Summer term Y1	Mass and volume	Multiplication and division	Place value within 100	Money	Time	Position and direction
Y2	Mass, capacity and temperature	Time	CONSOLIDATION OF ANY PREVIOUS UNIT	Problem solving with money	Statistics	Position and direction

	First half term			Second half term		
Autumn term Y3	Place value		Addition and subtraction		Multiplication and division	
Y4	Place value		Addition and subtraction		Multiplication and division	
Spring term Y3	Multiplication and division		Length and perimeter	Area Y4 focus	Fractions	
Y4	Multiplication and division		Length and perimeter	Area Y4 Focus	Fractions	
Summer term Y3	Mass and capacity	Money	Time	Shape	Statistics	Position and direction Y4
Y4	Decimals	Money	Time	Shape	Statistics	Position and directions Y4

	FIRST HALF TERM			SECOND HALF TERM			
Autumn term Y5	Place value	Addition and subtraction	Multiplication and division	Fractions A		Fractions B	
Y6	Place value	Four operations		Fractions A		Fractions B	Converting units
Spring term Y5	Multiplication and division B		Decimals and percentages	Decimals and percentages	Perimeter and area	Statistics	
Y6	Ratio	Algebra	Decimals	Fractions, decimals, percentages	Area, perimeter and volume	Statistics	
Summer term Y5	Shape	Position and direction	Decimals	Decimals	Negative numbers	Converting units	Volume
Y6	Shape	Position and direction	Themed projects, consolidation and problem solving				

Assessment.

At Kenton Primary School, maths is assessed through a cold task, hot task from White Rose Maths, daily assessment for learning, and through end of term assessments using STAR maths. Assessment will take place by the class teacher who will assess against the maths objectives in the national curriculum and will input this data onto Target Tracker, our school's assessment programme. Assessment will be reported to the Subject Leader and the Subject Leader will monitor the teaching, learning and assessment of maths.

End Points and expectations.

By the end of EYFS:

Number ELG

Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns ELG

Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Progression of skills

Please see the 'ready to progress' document for a clear breakdown of skills and how they progress across the year groups.

Early Years Foundation Stage

We follow Development Matters for the curriculum for Early Years. Please see this for end points for each year group.

Years 1-6

We follow the national curriculum for Years 1-6. Please see the National Curriculum for end points for each year group in mathematics.