

# **Maths Policy**

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Approved by:	LGB	October 2025	
Next review due by:	As desired		

# For Office Use Only:

Policy Version: 1.0

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#### **National Curriculum Mathematics overview**

#### Purpose of study

Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject

National Curriculum, 2014.

## **National Curriculum Aims**

The 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

## Intent:

At Kidgate Academy, we intend for children to become life-long learners, where they can use their skills to solve everyday maths problems now and in the future. We intend to provide children with a foundation for understanding number, reasoning and problem solving with resilience, and a belief that anyone can be a mathematician.

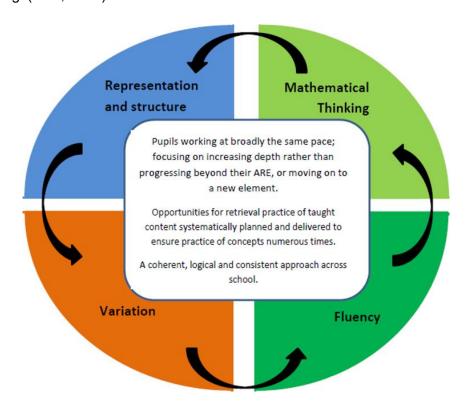
The only way
to learn
mathematics
is to do
mathematics.

PAUL HALMOS

## Implementation:

Since October 2020, Kidgate Academy have implemented the DfE recommended Power Maths scheme. 'Power Maths is a UK curriculum mastery programme designed to spark curiosity and nurture confidence in maths' (Pearson, 2020). Power Maths follows the concrete, pictorial, abstract (CPA approach). Further fluency and challenge is supported, if needed, using White Rose resources. Interleaving and retrieval tasks are provided by teachers to ensure key knowledge is embedded and consolidated. All staff are supported by research based teaching strategies, such as EEF and Walkthrus. This ensures high quality teaching raises outcomes and attainment. Targeted interventions are delivered effectively,

ensuring that no child is left behind and closing gaps between all groups of children. Children are given opportunities to explain their answers, which allows the children to run through the process they used to solve a calculation, supporting metacognition. 'Metacognition and self-regulation approaches to teaching support pupils to think about their own learning more explicitly, often by teaching them specific strategies for planning, monitoring and evaluating their learning' (EEF, 2022).



#### **Maths in the Early Years**

Early Years follow the Pearson Power Maths programme. There is a clear focus on early mathematical skills, which ensure that our children are confident in early number and place value, gaining the skills they need to confidently solve mathematical problems. Mathematical language and problem solving is encouraged throughout the day in Early Years; throughout the provision, during circle time and in songs, rhymes and carpet inputs. Provision follows a cycle based on retrieval, where there is opportunity to explore the mathematical area being taught that week, but also set up is a challenge incorporating problem solving skills linked to prior learning. This is determined through a retrieval practice schedule and ensures we are able to consolidate learning and identify and address any gaps in the children's knowledge.



## **Retrieval Practice**

It is essential for retrieval to occur for all areas of maths in a scheduled, strategic manner. This may be increasing in occurrence (seeing a concept 3, 6, 9 weeks later), or planned in every 3 weeks, for example. Using problems, multiple choice questions and a variety of fluency and reasoning questions provides the most success; ensuring children get a rich variety of questions.

### What does this look like at Kidgate?

- Weekly arithmetic sessions allow for children to practice methods they have already learned.
- Times Tables Rockstars (TTRS) and personalised times table tests follow the 3, 6, 9 retrieval schedule and Minute Maths.
- In KS2, Brainbusters follow a schedule so that children revisit a previously taught element of their Maths learning in a variety of ways.
- Use of 'Flashback 4' from White Rose.

#### Impact: Assessment and what the children can demonstrate

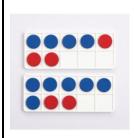
- Children are engaged and enthusiastic mathematicians
- Children will be able to demonstrate mastery skills and use mathematical language to explain their ideas.
- Children have a sense of the size of a number and where it fits into the number system.
- Children have a strong knowledge of number facts, such as number bonds and multiplication tables to aid fluency.
- Children are able to explain (reason mathematically) and demonstrate a range of formal methods used to solve mathematical problems.
- The 'testing' of concepts and procedures are in a low-stakes manner, providing essential retrieval practice experience.
- Termly summative assessments are completed; the outcomes of this are used by the teacher (and maths subject leaders) to ensure that any identified gaps in understanding can be addressed.

#### **Calculation Policy**

The Power Maths Calculation Policies for each Key Stage, show the progression from each year group, including methods and how the CPA approach is used.

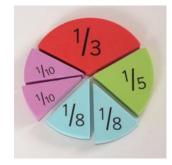
## Displays, resources and representations

**Examples of concrete resources** Manipulatives support conceptual understanding and procedural fluency. What can we use to help us understand the concept being taught? Always model on the board even if you think it is not needed in children's independent work. Certain year groups will use more of certain types than others. As time goes by, children will work independently of the chosen manipulatives. This will increase as they move through school, but at no point should apparatus be avoided for those who still need them.



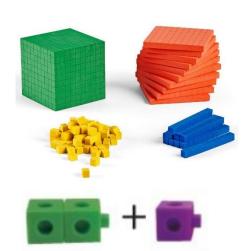












**Examples of working walls:** Each class has a 'Maths Working Wall' where key vocabulary, methods and the CPA approach is demonstrated. This is regularly updated in line with current teaching and the needs of the class. Children have the opportunity to use a range of equipment and are exposed to different representations in order to deepen their understanding of a concept.

