Kingsway Primary School Maths Provision

Mathematics Vision Statement

“Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing solutions 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 for Mathematics (2014)

At Kingsway Primary School, we are committed to delivering a high-quality mathematics education that enables all pupils to develop fluency, reasoning, and problem-solving skills. Our aim is for every child to think mathematically, apply their knowledge in a range of contexts, and develop confidence and curiosity in the subject.

Our curriculum is rooted in a mastery approach, ensuring that all pupils develop a deep and secure understanding of mathematical concepts through carefully sequenced learning. We use a concrete–pictorial–abstract (CPA) approach to support conceptual understanding and ensure that pupils can represent and apply their knowledge in multiple ways.

Aims

We aim for all pupils to:

- Develop fluency in the fundamentals of mathematics, with secure conceptual understanding and rapid, accurate recall
- Solve problems by applying mathematics to a variety of contexts, including unfamiliar and real-life situations
- Reason mathematically by following lines of enquiry and justifying their thinking using precise mathematical language
- Develop strong number sense and efficient calculation strategies to support success across the curriculum

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Teaching Approach

Mathematics at Kingsway Primary School is taught through a mastery approach. A concept is considered mastered when a pupil can represent it in multiple ways, explain their thinking using appropriate mathematical language, and apply it to complex problems.

Daily teaching consists of two core elements:

- **Mastery Mathematics Lessons** – focused on conceptual understanding, reasoning, and problem solving
- **Mathematics Fluency Sessions** – focused on developing procedural fluency and automaticity

The school is currently transitioning from the *Can Do Maths* scheme to an approach guided by the **NCETM** (National Centre for Excellence in the Teaching of Mathematics), using resources from **Oak National Academy** to support high-quality modelling and representations.

- Years 2, 3, 6 and Flamingo Class have begun this transition
- Remaining year groups will implement this approach from Autumn Term 2026–27

Fluency is prioritised across Years 2–6 through structured teaching of the four operations, fractions, and percentages. Mental calculation is developed through both whole-class and independent practice, supported by digital tools such as NumBots and Times Tables Rock Stars.

In Early Years and Year 1, teaching follows the NCETM **Mastering Number** programme to establish strong foundations in number.

Enrichment and Provision (EnPro)

- **Flamingo Class**: Follows the NCETM approach at a pace appropriate to pupils' needs
- **Robin Class**: Engages in early mathematical development through *Messy Maths*, incorporating sensory and physical learning aligned with the Early Learning Goals

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Definition of Mastery

Mastery is a long-term process achieved through exploration, practice, application, and reflection over time. It is characterised by:

- The ability to represent concepts in multiple ways
- The use of precise mathematical language
- Deep understanding demonstrated through reasoning and problem solving
- The ability to apply knowledge flexibly in new and unfamiliar contexts

Mastery goes beyond memorisation; it requires understanding why methods work, not just how to perform them. Pupils are challenged through rich and sophisticated problems, ensuring depth of understanding before progression.

Our Beliefs

At Kingsway Primary School, we believe:

- Mathematics is a creative and essential discipline that helps us understand the world
- All children can achieve in mathematics; ability is not fixed
- Mistakes are a valuable part of learning and should be explored and discussed
- Deep understanding is prioritised over rapid progression through content
- Challenge should be provided through depth, not acceleration

Curriculum Design

Our curriculum is designed to ensure all pupils develop secure and deep understanding of key concepts.

- Learning is carefully sequenced into small, coherent steps
- Pupils explore concepts through concrete, pictorial, and abstract representations
- Opportunities for reasoning and problem solving are embedded throughout
- Depth is prioritised, with opportunities to “go deeper” within concepts

In the Early Years, provision is based on *Development Matters (2021)* and is carefully sequenced from Nursery to Reception to support achievement of the Early Learning Goals. Continuous provision offers regular opportunities to consolidate and extend mathematical understanding.

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Underlying Ethos of Mastery Teaching

Mathematics teaching at Kingsway Primary School is underpinned by the following ethe:

1. All children can achieve
2. Consistent calculation methods (Calculation Policy)
3. Use of CPA approach as a cycle, not a linear progression
4. Regular opportunities to practise and revisit key skills (Maths Meetings)
5. Structured progression of fluency skills from EYFS to Year 6

Assessment

At Kingsway Primary School, assessment is an integral part of teaching and learning and is inextricably linked to our curriculum.

We assess mathematics through three forms:

- In-school formative assessment
- In-school summative assessment
- Nationally standardised summative assessment

Assessment data is recorded using **Insight**, with **Edukey** used for SEND provision and My Plans.

Formative Assessment

Formative assessment is continuous and embedded within daily teaching. It includes:

- Careful questioning to probe understanding
- Use of mini whiteboards and immediate response strategies
- Observation of pupils during discussion and independent work
- Analysis of misconceptions and errors
- Regular mini-plenaries to address gaps in understanding

Teachers use this information in real time to adapt teaching, ensuring misconceptions are addressed promptly and learning moves forward securely.

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In-School Summative Assessment

Summative assessments are recorded on Insight three times a year at the end of each long term. Teachers analyse this data to identify trends and areas for development, meet with mathematics leaders to plan next steps, and use the outcomes to inform Quality First Teaching and targeted support, including a specific focus on the progress of disadvantaged pupils. Senior leaders collate and analyse whole-school data, report outcomes to governors, and identify priorities for staff training and development. To support accurate teacher judgement, the school uses a range of assessment tools including PUMA assessments, MathsBot arithmetic tests, and, where applicable, Can Do Maths "Remember It" assessments. Where pupils are unable to access age-related assessments, a Mathematics Age is assessed and tracked over time.

Additional Assessment for SEND

Additional assessment for pupils with SEND includes regular My Plan reviews every 12 weeks, which are recorded on Edukey, alongside annual EHCP reviews and ongoing teacher assessment to ensure progress is closely monitored and provision is appropriately adapted.

Nationally Standardised Summative Assessment

Nationally standardised assessment enables leaders to evaluate attainment and progress, supports teachers in benchmarking outcomes against national expectations, and helps parents and pupils understand performance in a national context. In primary mathematics, this includes the Year 4 Multiplication Tables Check (MTC) and the Key Stage 2 SATs in Mathematics, comprising one arithmetic paper and two reasoning papers.

Pupil Progress

Following each assessment cycle, teachers analyse class data and produce a summary which is then discussed in pupil progress meetings with senior leaders. These discussions focus on identifying whole-class trends to inform Quality First Teaching, as well as the progress and needs of specific groups and individual pupils. In addition, Reducing Barriers to Learning (RBL) meetings are held twice yearly with the SENDCo and pastoral team—once in the summer term as part of transition and again in the autumn term once pupils have settled. These meetings are used to identify barriers to learning and plan appropriate interventions, support strategies and, where necessary, referrals to external agencies.

SEND Provision in Mathematics

All pupils are entitled to the highest quality mathematics teaching, and this remains of the utmost priority across all provision. Teachers are expected to use adaptive teaching as a

non-negotiable approach to ensure full access to learning for every pupil, actively identifying those who require additional support through ongoing assessment and responsive practice. Where needs are identified, targeted interventions are put in place promptly and purposefully. Some pupils may have a My Plan or My Plan Plus, and a smaller number may hold an Education, Health and Care Plan (EHCP), all of which inform and strengthen provision. Interventions are tightly focused on developing secure number sense, ensuring fluency with core mathematical skills, and enabling sustained access to age-related learning objectives. Pupils with SEND are prioritised for consistently high-quality first teaching delivered by the class teacher, with any additional support carefully layered through timely, targeted intervention where it is genuinely required.

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The Structure of a Mastery Lesson

Our teaching is guided by ten key principles:

1. Clear, Small Steps

Learning is broken into carefully sequenced steps that build on prior knowledge, ensuring coherence and avoiding premature acceleration.

2. Precise Mathematical Language

Vocabulary is explicitly taught, modelled, and expected from all pupils.

3. Use of Representations

Concrete, pictorial, and abstract representations are used purposefully to reveal mathematical structure and deepen understanding.

4. Mathematical Thinking

Pupils are encouraged to explain, justify, and make connections, using full sentences and structured reasoning.

5. Fluency Through Variation

Carefully designed practice develops both procedural and conceptual fluency through variation.

6. Addressing Misconceptions

Misconceptions are anticipated and explored, using incorrect answers as learning opportunities.

7. Review and Retrieval

Prior learning is revisited and explicitly connected to new concepts.

8. Pupil Thinking at the Centre

Lessons are designed so that all pupils are actively engaged in meaningful mathematical thinking.

9. Depth for All

All pupils engage in reasoning and problem solving; challenge is achieved through depth rather than new content.

10. Responsive Teaching

Teaching is adapted in real time based on pupil understanding, with ongoing assessment informing instruction.