



Gotham Primary Vision for Mathematics



“Wherever there is number, there is beauty.”

— Proclus, Greek philosopher

At Gotham Primary School, it is our intention and duty that **every** child not only leaves our school being able to calculate fluently, but see themselves as the mathematician they are. We have ambition for all, helping pupils to gain enjoyment, resilience and courage through a growing self-confidence in their ability.

Our mastery curriculum is designed to allow all pupils to become arithmetically fluent, reason mathematically and solve problems. Though careful sequencing of learning, pupils will ‘make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.’ (NCTEM)

All our learners are mathematicians, and we recognise that mathematical language is a structure for understanding. Vocabulary and oracy are therefore fundamental to our delivery of mathematics. We develop learners’ ability to be fluent in mathematical facts. By offering these secure mathematical foundations, we will provide prolific opportunities for learners to reason and to solve problems through mathematical talk, concrete resources and small steps that build upon prior learning. Our children are encouraged to recognise, understand and appreciate relationships and patterns in numbers in the world around them.

Our progression follows the National Curriculum and has been designed to ensure that every child understands that maths is a significant life skill, empowering learners to make sense of the world around them. We provide our mathematicians with a variety of mathematical opportunities and appropriate challenge, which will enable them to make the connections needed to enjoy greater depth in learning. Through a mastery approach, we support learners with age-appropriate material through targeted scaffolding and opportunities to challenge and explain reasoning in greater depth. Mistakes are magnificent, central to the beauty of mathematics, and so are fundamental to our teaching and mantra of having a go, supporting our learners’ mental health and resilience.

Our approach to the teaching of mathematics reflects our school culture, one of metacognition and self-regulation. We equip children with the tools to activate their prior knowledge, plan, monitor and evaluate. Success in mathematics comes from taking risks and being courageous, qualities we aim to foster in our children. Our learners reflect on their own work and the work of others so that we are...

Being the best we can be together!

(Our Mission Statement)

Gotham Primary School mathematics: INTENT

At Gotham Primary School, we ensure that our teaching and learning is grounded in the National Curriculum and is delivered using a mastery approach.

To achieve this successfully, we follow the White Rose maths progression and sequencing throughout our curriculum, and supplement this with bespoke fluency or curriculum support indicated by rigorous assessment strategies. Our detailed progression of learning can be found on our school website.

Gotham Primary School mathematics: IMPLEMENTATION

Lessons are planned and sequenced carefully, with the support of White Rose and our knowledge of the children's individual progress. The lesson sequence ensures that new knowledge and skills build on what has been taught previously. Our teaching will address the needs of the children and regular assessment for learning informs our next steps. Our small-step mastery approach will enable us to include all learners and pre-empt misconceptions; gaps revealed by assessment are addressed through regular retrieval practice and intervention where necessary.

Staff refer to our White Rose Calculation Policy when teaching formal methods, ensuring a consistent, whole-school approach. Through clear modelling and practice, children will have the most efficient methods available to them in order to problem-solve effectively.

Times Tables and other key fluency facts such as number bonds are taught throughout school and counting time is found during the week. To embed our learning of fluency, the use of Times Tables Rockstars KS2 is used to improve speed and fluency. Fluency is tracked and monitored to ensure all children make progress and have access to challenging application of this key knowledge. Learning will be applied to different contexts as part of our planning, supported by White Rose sequencing and retrieval practice.

Children have the opportunity to use concrete resources and manipulatives to support their understanding. In our mastery approach, we empower all children to use strategies that support them to "see maths" and leave Gotham Primary with strong number sense. Our lessons also utilise pictorial and abstract representations of number, allowing children to model their thinking and explain their reasoning.

Children are encouraged to participate, collaborate, and explain their reasoning through the use of learning partners. Through use of mathematical vocabulary, modelled by adults and peers, stem sentences support their understanding and consolidate children's learning.

We are supported by the Maths Hub on our mastery journey.