

KS3 Curriculum - Mathematics

The aim of the KS3 mathematics curriculum at Queensbridge School is to embed an energetic mastery-based curriculum. The concrete, pictorial, abstract model is carefully considered at this stage of learning.

By the end of KS3, pupils should have...

- Secured a fluent knowledge of fundamental mathematical skills
- Been engaged with carefully selected questions and rich and sophisticated problems.
- Had the opportunity to take part in weekly challenges, form time maths league and UKMT competitions.
- Completed carefully crafted projects in year 7 to help embed the learning that has taken place throughout the cycle
- Competed in competitions at the end of each cycle in year 8.
- Developed independent working skills through homework, exam week revision and our assessment system.

Year 7

Methodology:

- Pupils will learn how to think algebraically, to apply their number skills, be skilful in geometry and begin to understand how to reason mathematically.
- Underpinning these areas are the core principles of a mastery curriculum: to be fluent, to be able to reason and to problem solve.

Skills:

- Pupils must be proficient with mathematical equipment such as rulers, compasses and protractors
- Pupils must develop fluency in mental arithmetic, including times tables.
- Pupils must be able to complete long division, multiplication and the four rules of fractions
- Pupils must secure an understanding of key mathematical terminology.

Content:

- Number application and reasoning
- Algebraic thinking
- Lines and angles
- Working with fractions

Year 8

Methodology:

- Pupils will learn how to represent a variety of mathematical information, how to calculate proportion, develop their algebra techniques, and improve their geometric understanding and skills.
- These areas continue to be underpinned by the core principles of a mastery curriculum; to be fluent, to be able to reason and to problem solve

Skills:

- The fundamental skills secured in year 7 will be practised and developed throughout year 8, due to their significance in allowing pupils to progress on to developing conceptual understanding and apply their knowledge rapidly and accurately to problems.
- By the end of the year, we would also expect students to have secured a basic level of algebraic fluency.
- Pupils must also have secured a strong understanding of the key terminology covered throughout the year.

Content

- Using representations
- Algebraic techniques
- Developing Geometry
- Using proportion