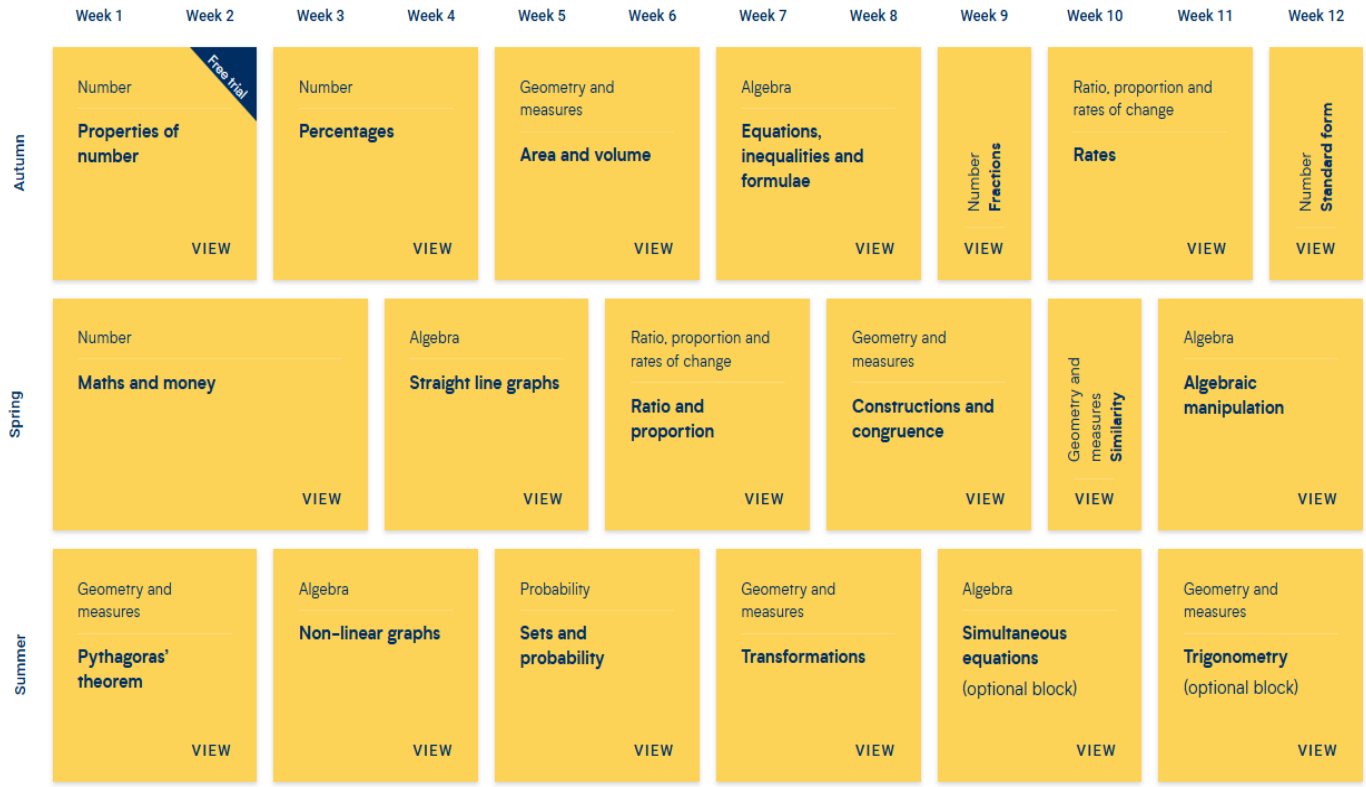
Year 9 – Mathematics

WRM – (V3)



Curriculum Overview

Year 9 represents an important stage in students' mathematical education as they complete Key Stage 3 and prepare for the transition to GCSE Mathematics. Building on the knowledge and skills developed throughout Years 7 and 8, students deepen their understanding of key mathematical concepts and develop greater confidence in applying their learning to increasingly complex problems.

Throughout the year, students are also introduced to the expectations and assessment approaches associated with GCSE Mathematics, helping them develop familiarity with examination-style questions and the skills required for future success.

What Students Will Learn

Autumn Term – Number, Algebra and Proportion

Students consolidate their understanding of number properties, percentages, fractions, rates and standard form. They also develop their skills in calculating area and volume, solving equations and inequalities, and using formulae to solve mathematical problems.

Spring Term – Financial Mathematics, Graphs and Geometrical Reasoning

Students explore financial mathematics, straight-line graphs, ratio and proportion, applying these concepts to practical problems. They also develop their understanding of constructions, congruence and similarity, while strengthening their algebraic skills through manipulating expressions and solving problems.

Summer Term – Advanced Mathematical Concepts and GCSE Preparation

Students explore Pythagoras' theorem, non-linear graphs, sets, probability and transformations. Where appropriate, they also study simultaneous equations and trigonometry. As they complete Key Stage 3,

students consolidate prior learning and develop confidence in applying their knowledge to GCSE-style questions.

Assessment and Retrieval of Learning

Throughout Year 9, students complete regular assessments designed to strengthen their understanding and retention of mathematical knowledge. Following the completion of a new unit, students are assessed on previously taught content, encouraging them to recall and apply knowledge after a period of time.

This approach, known as *delayed retrieval*, supports long-term retention and allows teachers to identify misconceptions, address gaps in understanding and adapt teaching to meet students' needs.

Students also complete **termly assessments at the end of the Autumn, Spring and Summer terms**, covering knowledge and skills from current and previously taught topics.

End-of-Key-Stage 3 Assessment and GCSE Preparation

At the end of Year 9, students will sit **full GCSE Mathematics Foundation tier examination papers, including both non-calculator and calculator papers**, to assess their mathematical knowledge and skills developed throughout Key Stage 3.

These assessments will familiarise students with GCSE examination formats, question styles and expectations, while developing essential examination techniques such as time management, clear mathematical working and checking answers.

Results will help teachers identify strengths and areas requiring further support, ensuring students are well prepared for the transition to Year 10 and GCSE Mathematics.

How Parents and Carers Can Support Learning

As students complete Key Stage 3, parents and carers can build on the positive learning habits established in Years 7 and 8, helping their child develop confidence and independence in Mathematics.

Everyday activities can support Year 9 learning:

- **Autumn Term:** Explore percentages, fractions and proportion through shopping, discounts and comparing quantities.
- **Spring Term:** Discuss budgeting, savings and financial decisions, and encourage your child to interpret everyday graphs.
- **Summer Term:** Encourage revision of earlier topics and practice with GCSE-style questions to prepare for the end-of-year assessments.

Supporting Learning Throughout the Year: Continue to encourage regular homework, revision and discussion of assessment feedback. As the end-of-Key-Stage 3 assessments approach, support practice with both calculator and non-calculator questions. Recognising effort and progress will help students build confidence and prepare for GCSE Mathematics.