

Y11F ROADMAP - Mathematics

Subject Aim: The Year 11 Foundation Maths curriculum aims to consolidate and strengthen students' understanding of key concepts essential for success at GCSE Foundation level. It focuses on building confidence and fluency through personalised practice and supports the development of problem-solving skills and real-life applications, preparing students effectively for their exams and future challenges.

TERM 1

Can algebra be used to calculate area?

Students revisit essential number skills by covering factors, multiples, primes, and focusing specifically on highest common factors (HCF) and lowest common multiples (LCM). They consolidate and extend their understanding of fractions, including calculations involving fractions and mixed numbers. Students then revisit algebraic skills, simplifying expressions and solving equations. Finally, they apply these algebraic techniques to solving simultaneous equations, building fluency and confidence in preparation for GCSE examinations.

TERM 2

How is trigonometry used to build cities?

Students build on their geometric knowledge, starting with finding unknown angles in various contexts. They then explore right-angled triangles, applying Pythagoras' theorem and basic trigonometry to solve problems. The focus then moves to surface area and volume, developing skills in calculating these measurements for a range of 3D shapes. The term concludes with statistical diagrams, where students learn to draw, interpret, and analyse different statistical representations.

TERM 3

Can a mathematician predict the future?

Students revisit and extend their prior learning of probability, exploring both theoretical and experimental approaches in greater depth. They build on earlier work with inequalities by solving and representing linear inequalities with increased confidence. The term continues with vectors, where students deepen their understanding by applying vector notation and solving more complex problems.

TERM 4

How much spice is needed to make curry for a class?

Students revisit and deepen their understanding of percentages, focusing on percentage change. They extend their knowledge of compound measures by calculating with various compound units. The curriculum then builds on prior work in ratio and proportion, applying these concepts to algebra and solving proportion word problems. Students further develop their skills with standard form, performing calculations and applying this notation in different contexts. The term concludes with sequences, where students explore arithmetic and geometric sequences, including finding general terms.

TERM 5

Can you respond to feedback to make progress?

Students review and extend their previous work on linear graphs by exploring equations of parallel lines.

As exams approach, they are encouraged to work more independently and take initiative in seeking support. Regular feedback will be provided, along with opportunities to practise exam questions and papers, culminating in sitting their first GCSE paper before the end of term.

TERM 6

Can you respond to feedback to make progress?

Students will continue to revise and practise exam-style problems, preparing thoroughly before sitting the remaining GCSE papers.



ASSESSMENT

All lessons will assess understanding through a range of activities, including diagnostic questions, mini whiteboard tasks, and find-and-fix activities. Lessons are regularly punctuated with hinge questions, key statements, and opportunities for discussion. PPE exams will take place in November and February.

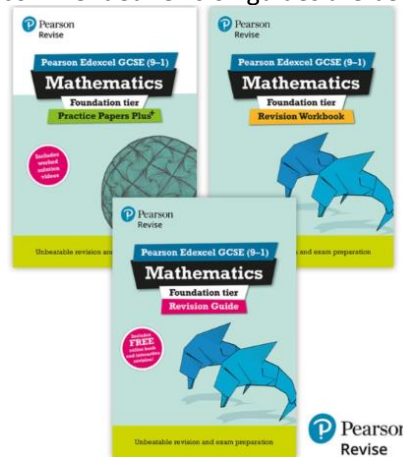


INDEPENDENT LEARNING

Knowledge Organisers are expected to be used weekly to support the learning and recap of key vocabulary as the course progresses.

Sparx Maths will be used as an online resource to aid independent learning.

Recommended revision guides are below.



ENRICHMENT

- Maths challenge activities.
- Maths' relays allowing opportunity for problem solving.
- Term 5 well-being and revision trip to Playzone Lincoln

What Next? You should work independently to address gaps identified by your teacher while completing revision activities during lessons. This may include using practice papers, Sparx Maths, and Question Level Analyses (QLAs) to support your learning.