

Year 11 Autumn Term Maths Curriculum – Mrs Joseph

Autumn Term curriculum overview for **Mrs Josephs** class.

Each topic will start with a review to focus on the underpinning work required in order to gain confidence before moving forward to the more advanced parts of the topic.

Algebra 1	Students will review work on solving equations so that they become confident in multi-step problems as a basis for future work. They will then look at substituting into expressions, that increase in complexity, in order to solve problems at a variety of levels.
Factors, multiples and Primes	After recapping the mathematical definitions and becoming competent with their use, students will look at prime factor decomposition and using Venn diagrams to find HCF's and LCM's
Indices	Students will recap the fundamental laws of indices and then look in more detail at negative and fractional powers. They will consider both numeric and algebraic examples in order to evaluate or simplify expressions.
Ratio and Proportion	After understanding the differences between ratio and proportion students will look at solving many different types of problems. They will work on several models before using an algebraic approach to both direct and inverse proportion.
Pythagoras and trigonometry	Students will recap Pythagoras and Trigonometry in two dimensions before looking into three dimensions based on right angled triangles. They will then use trigonometry to find the area of a scalene triangle and work on both the sine rule and cosine rule for non-right-angled triangles.
Probability and set notation	A review of a variety of diagrams and models for solving probability problems will be completed. Following this, students will look at set notation and the use of Venn diagrams for solving more complex probability problems.

It is intended that students in this group sit a full set of Foundation papers in the November mock exams, followed by a full set of Higher papers in the March mock exams. We will then decide based on results, classwork and homework which tier is most suitable for the Summer exams.

Foundation Grade 5 and below

Higher Grades 9 - 4