Overview

Students study topics in each of the five key strands in mathematics: Number, Algebra, Geometry, Ratio & Proportion and Statistics & Probability. Each strand builds on their prior learning from Years 7, 8, 9 and 10.

Students on Crossover will study key topics from the Higher tier specification, focusing on building reasoning and problem-solving skills alongside exam technique to increase pupil independence in preparation for their Mock exams.

Autumn

Unit C21: Proportion Equations – linear and non-linear direct proportion equations, linear and non-linear inverse proportion equations

Unit C22: Quadratics 2 – factorising with a coefficient, solving with quadratic formula, completing the square, solving quadratics from algebraic fractions

Unit C23: Representing Data 3 – box plots, cumulative frequency, histograms

Unit C24: Problem Solving – Ratio and Proportion – a mix of proportion questions focusing on multi-step problem sovling including combined mean, inverse proportion, working in reverse, compound interest and reverse percentages

Unit C25: Area – area in context, comparing area and forming and solving equations with area

Unit C26: Volume and Surface Area – revising volume and surface area and practicing questions focusing on problem solving

Unit C27: Angles – revising angles in polygons and angles in parallel lines

Unit C28: Circles – functional area and perimeter of circles and arcs/sectors

Unit C29: Index Laws – mixed indices, fractional powers and converting powers to a different base

Unit C30: Surds – simplifying, multiplying and dividing surds, adding and subtracting surds, expanding and simplifying with surds, rationalising surds

Assessment:

Mock 1 takes place in Half Term 2.

Students will be informally assessed every lesson using questioning, mini whiteboards and marking of independent work.

There will be an fortnightly Pre Seen assessments to prepare students for the full GCSE

Spr

Unit C31: Iteration – identifying roots, rearranging, finding a solution, recurrence relations

Unit C32 Upper and Lower Bounds – error intervals, calculations with upper and lower bounds and limits of accuracy

Unit C33: Further Trigonometry – area of a non-right angle triangle, sine rule, cosine rule, trigonometry graphs

Unit C34: Functions – function notation, composite functions, inverse functions, functions and equations

Classes follow a bespoke Revision Programme based on identified areas of need to prepare them for the final GCSE assessment.

Assessment:

Mock 1 takes place in Half Term 4.

Students will be informally assessed every lesson using questioning, mini whiteboards and marking of independent work.

There will be fortnightly Pre Seen assessments to prepare students for the full GCSE exams.

Sum

Classes follow a bespoke Revision Programme based on identified areas of need to prepare them for the final GCSE assessment.

Assessment:

Students will be informally assessed every lesson using questioning, mini whiteboards and marking of independent work.

There will be an End of Topic Review at the end of each unit.

There will be fortnightly Pre Seen assessments to prepare students for the full GCSE

Useful resources for supporting your child at home:

Videos on Sparx (www.sparxmaths.uk)

Videos on Corbett Maths (Videos and Worksheets – Corbettmaths)

CGP GCSE Maths Edexcel Revision Guide (link here)

REVISE Pearson Edexcel GCSE (9-1) Mathematics (link here)

Homework:

Year 11 homework will be set once a week.

In week B homework will be to complete a shadow paper in preparation for their Pre Seen exam. In week A their homework will be selected exam questions based on feedback from their Pre Seen exam.