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, and 9.

We focus on developing knowledge and skills in each of the five strands which students will then build on to solve problems and reason mathematically.

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Unit C1: Forming and Solving Equations – forming expressions from words, forming and solving equations from worded problems, forming and solving equations involving shape and angles

Unit C2: Rearranging – one step rearranging, multi step rearranging, rearranging with fractions, with negative unknowns and with unknowns on both sides

Unit C3: Compound Measures – calculating speed distance and time, calculating average speed, distance time graphs, calculating density mass and volume, calculating force pressure and area

Unit C4: Congruence and Similar Shapes 2 – congruent triangles, congruency proof, similar triangles, area scale factor, volume scale factor

Unit C5: Growth and decay – simple interest, compound interest, comparing compound and simple interest, depreciation, exponential growth and decay

Unit C6: Plotting Graphs – plotting straight line graphs, plotting quadratic graphs, properties of quadratic graphs, cubic and reciprocal graphs

Unit C7: Coordinate Geometry – equation of a straight line, rearranging y=mx+c, equation of a line, parallel lines, perpendicular lines

Assessment:

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

There will be an End of Half Termly Assessment covering those units and interleaving previous knowledge.

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Unit C8: Simultaneous Equations 1 – solving linear simultaneous equations with elimination and substitution method, solving linear simultaneous equations graphically

Unit C9: Quadratics – expanding and factorising quadratic expressions and then rearranging and solving quadratic equations all where the coefficient of a = 1

Unit C10: Ratio 2 – sharing in a ratio where different pieces of information are given, working with two ratios in problems with either combined ratio, combined ratio on a line, splitting in a ratio, changing shares in a ratio

Unit C11: Transformations 2 – combined transformations, positive and negative enlargement

Assessment:

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

There will be an End of Half Termly Assessment covering those units and interleaving previous knowledge.

Mid-Year assessments will take place in January.

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Unit C12: Right Angle Trigonometry – finding missing side lengths, finding missing angles, problem solving with trigonometry

Unit C13: Standard Form Calculations – multiplying and dividing with standard form, adding and subtracting with standard form, standard form with a calculator

Unit C14: Product Rule

Unit C15: Recurring Decimals – recurring decimals to fractions, calculations with recurring decimals

Unit C16: Quadratic Sequences – quadratic nth term, generating quadratic sequences

Unit C17: Bearings – measuring, reading and drawing bearings, bearings with Pythagoras and trigonometry

Assessment:

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

There will be an End of Half Termly Assessment covering those units and interleaving previous knowledge.

End of Year assessments will take place in June.

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:

Homework will be set on Sparx (www.sparxmaths.uk).

Homework will be set once a week and students are expected to complete 100% of their homework each week. Homework is bespoke for all students depending on their performance in previous weeks.