# Year 11 Higher

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 Higher tier will complete the specification content, focusing on building reasoning and problem-

Students on Higher tier will complete the specification content, focusing on building reasoning and problemsolving skills alongside exam technique to increase pupil independence in preparation for their Mock exams.

Unit H25: Further Trigonometry – area of a non-right angle triangle, sine rule, cosine rule, trigonometry graphs

Unit H26: Functions – function notation, composite functions, inverse functions, functions and equations

**Unit H27: Proof –** equivalent statements, multiples, odd and even, consecutive numbers

Unit H28: Iteration - identifying roots, rearranging, finding a solution, recurrence relations

Unit H29: Simultaneous Equations 2 - non-linear and linear equations algebraically and graphically

Unit H30: Inequalities 2 – shading inequalities, describing shaded regions, solving quadratic inequalities

**Unit H21: Vectors 2** – resultant vectors, midpoints, ratios, parallel vectors and proof, co-linear vectors and proof, unknown vector scalar proofs

**Unit H32: Graphical Transformations** – translations, reflections of functions, transformations of trigonometric graphs

Unit H33: Gradients and Area Under a Graph – equation of a tangent to a circle, interpreting gradients, finding acceleration, estimating distance travelled

## **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 exams.

**Unit H34\*: Congruence and Similar Shapes** – congruent triangles, congruency proof, similar triangles, area scale factor, volume scale factor, mixed area and volume problems

Unit H35\*: Circle Theorems – all circle theorem rules, circle theorem proofs

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.

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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 exams.

# Useful resources for supporting your child at home:

Videos on Sparx (<u>www.sparxmaths.uk</u>)

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 and paper based.

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.

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