

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. 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. Our year 11 curriculum is adapted to suit the needs of our cohort based on question level analysis in formal exams.

Autumn

11.09: Further Statistics – finding quartiles from a data set, box plots, cumulative frequency, histograms
11.10: Transformations – reflections, rotations, translations, enlargements, combinations of transformations
11.08: Further trigonometry – area of a triangle, sine rule, cosine rule
11.07: Circle Theorems – Angle at centre is twice the angle at the circumference, angle in a semi-circle, angles in the same segment are equal, opposite angles in a cyclic quadrilateral, Alternate Segment Theorem, tangent and radius meet at a right angle, tangents outside a circle are equal, proof
11.04: Iteration – introduction to iteration, using iteration to find a solution

Assessment:

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

Students will sit a full set of past papers for their Mock 1 exams in November.

Students will work through a pre-seen cycle sitting an exam paper every two weeks which is marked by the class teacher.

Spring

11.03: Functions – Introducing functions, composite functions, inverse functions, function problems creating equations
11.01: Algebraic Proof – equivalent statements, proof from given terms, proof from given statements
11.05: Quadratic Inequalities – graphing linear inequalities and shading regions, quadratic inequalities
11.06: Bearings & Scale Drawings – measuring and reading, drawing, bearings and angles, bearings, Pythagoras and trigonometry
11.11: Congruence – congruent shapes, congruent triangles
11.12: Vectors – vectors from a line segment, adding and subtracting vectors, multiplying vectors, drawing vectors, parallel vectors, midpoints and ratios, co-linear vectors
11.14: Graphical transformations – translations of functions, reflections of functions

Assessment:

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

Students will sit a full set of past papers for their Mock 2 exams in March.

Students will work through a pre-seen cycle sitting an exam paper every two weeks which is marked by the class teacher.

Summer

Revision Programme – students follow a bespoke revision programme based on topics identified from assessment QLAs. Topics studied will be selected from the following:

Further statistics, Transformations, Congruence, Vectors, Further gradients, area under a graph and kinematics, Graphical transformations, Bounds, Rearrange formulae, Proportion, Volume & SA, Similar shapes, Circle Theorems, Construction & Loci, Manipulate quadratics, Rearrange formulae, Right angled Trigonometry and Pythagoras, $y=mx+c$ (plotting & algebraic), Surds, Direct and inverse, proportion, Construction & Loci, Bounds, Transformations (inc. fractional and negative), Volume & SA, Further Number, Further Algebra, Tree diagrams, Venn diagrams, Histograms and CF, Graphical transformations

Assessment:

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

Students will sit a full set of past papers for their GCSE exams in May/June.

Students will work through a pre-seen cycle sitting an exam paper every two weeks which is marked by the class teacher.

Useful resources for supporting your child at home:

Videos on MathsWatch ([MathsWatch](#))
 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 MathsWatch ([MathsWatch](#)).
 Homework will be set once a week and students are expected to achieve over 70% on their homework each week. Homework is bespoke for each class and based on GCSE style exam questions.