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

11.01: Pythagoras – calculating the hypotenuse and shorter sides of right angled triangles. Pupils will also apply this to context and multi-step problem solving.

11.02: Right-Angled Trigonometry – calculating missing side lengths and angles in right angled triangles using trigonometric ratios. Students will also apply this to context and multi-step problem solving.

11.03: Bearings and Scale Drawings – calculating bearings and using scales in context to solve real-life problems. Students will link this to compound measure in multi-step problem solving.

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

11.04: Transformations – applying the four transformations of translation, reflection, rotation and enlargement. Students will also describe transformations and work combine transformations.

11.05: Congruence – applying the rules of congruency to triangles.

11.06: Vectors – manipulating column vectors using addition, subtraction and addition. Students will also draw and describe vectors.

11.07: Similar Shapes – determining whether shapes are similar to one another and calculating missing side lengths using the relationship between the two.

11.08: Constructions and Loci – use the standard ruler and compass constructions – perpendicular bisector of a line segment, constructing a perpendicular to a given line from/at a given point and bisecting a given angle. Use these constructions to then solve loci problems.

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:

Rearranging Formulae, Linear Graphs, Gradient and Y-Intercept, Compound Measure, Quadratic Graphs, Turning Points and Roots, Linear Simultaneous Equations, Further Graphs, Probability, Standard Form, Simple Interest, Growth and Decay, Further Ratio, Statistics, Pythagoras, Right Angled Trigonometry, Bearings and Scale Drawings, Transformations, Congruence, Vectors, Similar Shapes, Constructions and Loci

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 SparxMaths (SparxMaths)

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)

Maths Genie – Past Papers and Practice Questions (link here)

Homework:

Homework will be set on Sparx Maths (SparxMaths).

Homework will be set each week on Sparx Maths. Students are expected to reach 100% completion with a 100% success rate.

There are opportunities for students to work with their Maths teacher prior to the deadline to receive help.