Year 9:

The curriculum aims to build a foundation of mathematical skills which can be built upon into GCSE. The curriculum prepares students for the rigours of the GCSE in Maths. The course is split into 3 strands; A, B and C, with the difficult of the topics increasing from A to C

	Topic(s)	Key content to be learned	Assessment
Autumn Term 1	• Whole Number and Decimals • Measure, perimeter and area	Multiply and divide numbers by powers of 10 Multiply and divide numbers written in index form Round whole numbers to a given power of 10 Round decimals to 2 decimal places Identify and use multiples, factors, prime numbers Write a number as a product of prime factors, find the HCF/LCM Round numbers to 1 significant figure Convert between metric units measuring length, mass and volume Convert imperial measures, compare metric and imperial amounts Work out the areas of rectangles, triangles, parallelograms and trapezia Calculate circumference of a circle using $c=\pi d$ Calculate the area of a circle using $A=\pi r"$ Recognise and use common compound measures	Written assessment, on these topics only, once the content has been covered in class
Autumn Term 2	• Expressions and formulae • Fractions, decimals and percentages • Angles	Add and subtract fractions Multiply and divide integers by fractions Convert between decimals and fractions Calculate percentage changes Represent proportions using fractions, decimals and percentages Solve contextual problems including compound interest Factorise algebraic expressions Find equivalent algebraic fractions Add and subtract algebraic fractions Substitute into a formula in different contexts Change the subject of a formula Derive formulae in practical situations Draw graphs based on formulae Find missing angles in triangles, quadrilateral Sole angle problems that involve parallel lines Use the properties of regular polygons in geometrical problems Calculate exterior and interior angles of polygons Construct triangles and quadrilateral with a ruler and compasses	Written assessment, on these topics only, once the content has been covered in class

Spring Term 1	• 3D Shapes • Ratio and proportion • Probability	Recognise and name 3D shapes Analyse 3D shapes and deduce some of their properties Draw 3D shapes on isometric paper Analyse 3D shapes through 2D projections Draw the plan and elevation of a 3D shape Recognise reflection symmetry in 3D shapes Identify planes of symmetry Calculate the surface area of a prism Calculate the volume of a prism Solve problems that involve direct proportion Calculate percentages increases and decreases Simplify ratios Divide quantities in a given ratio Compare ratios Use the vocabulary of uncertainty and prediction Find and record outcomes of a single trial Understand theoretical probability Calculate the probabilities of exclusive events Use sample-space diagrams and tree diagrams Calculate experimental probability and compare with theoretical probability Enumerate sets using Venn diagrams	Written assessment, on these topics only, once the content has been covered in class
Spring Term 2	• Graphs • Equations	Use a table of values to draw a straight-line graph Recognise the equations of simple straight-line graphs Find the gradient of a line Find the intercept of a line Relate gradient and intercept to the general equation $y = mx + c$ Draw graphs from other forms of linear equations Draw and interpret real-life graphs including distance-time graphs Draw and interpret time-series graphs Solve equations by using inverse operations Solve equations that have brackets Solve equations that have fractions Solve equations that have unknowns on both sides Create your own equations and solve them	End of Year exams

Summer Term 1	• Statistics • Constructions and Pythagoras	Organise data into frequency tables Plot and analyse time-series graphs Plot scatter graphs and describe correlation Calculate the mean, median and mode averages and decide on the most appropriate to use in different situations Estimate averages for data presented on tables Make comparisons between sets of data Construct triangles and line and angle bisectors Find and describe loci Use Pythagoras' Theorem to solve problems involving right angles triangles	Written assessment, on these topics only, once the content has been covered in class
Summer Term 2	• Transformation and scale • Powers and roots • Sequences	Reflect, rotate and translate 2D shapes Enlarge a 2D shape given a centre of enlargement Use combinations of transformations Use and interpret maps and scale drawings Use bearings to specify directions Find the square and cube roots by trial and improvement or with a calculator Use the rules of indices to simplify powers Simplify expressions written in surd form Change between ordinary numbers and standard form Find the term-to-term rule for a sequence Find the position-to-term rule for a sequence Write the general term using algebra Solve problems involving sequences	No formal assessment

Useful links:

https://www.mymaths.co.uk/

Homework can be set on this platform. It is also a useful place to revise lessons on challenging topics as part of revision.

https://www.kerboodle.com/

Access the textbooks which are used in class. Catch up on missed work and revise chapters/topics which you are finding difficult

https://corbettmaths.com/

Videos on every topic covered. Exam questions to practice.