

Higher GCSE Maths Curriculum Map

	Topic	Content
Year 9	1 Calculations 1 (Number)	To know place value and round to dp and sf To add and subtract negatives and decimals and use BIDMAS To multiply and divide negatives and decimals
	2 Expressions (Algebra)	To simplify expressions To know the laws of indices To expand and factorise single brackets To simplify algebraic fractions To do four operations with algebraic fractions
	3 Angles and polygons (Geometry)	To know and use angle facts To know and use angles on parallel lines To know and use angle facts of triangles and quadrilaterals To prove congruence and similarity To find polygon angles
	4 Handling data 1 (Statistics)	To know types of sampling including random and stratified To organise data and collect data To represent data in bar charts and pie charts To find averages and spread from a list and frequency table To draw dot plot, angle and lines of best fit To draw and use cumulative frequency polygons To draw and use box plots To compare data sets
Year 10	5 Fractions, decimals and percentages (Ratio and Proportion)	To find fractions and percentages of amounts To calculate four operations with fractions To convert between fractions, decimals and percentages To convert recurring decimals to fractions
	6 Formulae and functions (Algebra)	To substitute into expressions and formulae To change the subject of a formulae To use functions including inverse and composite To understand equivalences in algebra To expand double and triple brackets To factorise quadratics
	7 Working in 2D (Geometry)	To measure lengths and angles including scale drawings and bearings To find area of a 2D shape To carry out and identify transformations To enlarge shapes including negative SF To combine transformations
	8 Probability (Probability)	To calculate probability from experiments To calculate theoretical probability To identify mutually exclusive events
	9 Measures and accuracy (Number)	To round to sf and use estimations To use calculator methods To convert between units of measure To use compound measures To find bounds of accuracy
	10 Equations and inequalities (Algebra)	To solve linear equations including brackets, fractions and unknown on both sides To solve quadratic equations by factorising To solve quadratic equations using quadratic formula To solve quadratic equations by completing the square To solve simultaneous linear and quadratic equations algebraically and graphically To use iteration to find approximate solutions To solve linear and quadratic inequalities To identify regions from inequality graphs
	14 Graphs 1 (Algebra)	To find and use equation of a straight line To plot linear and quadratic functions To be able to identify properties of quadratic functions including roots and turning points To use velocity-time graphs to find acceleration and distance (Kinematic graphs)
	12 Ratio and proportion (Ratio and proportion)	To represent amounts using proportion To share in ratio, simplify ratio and use overlapping ratio and scales To find %, increase & decrease, percentage change & reverse percentages
	13 Factors, powers and roots (Number)	To find factors and multiples, HCF, LCM To use powers and roots To use square roots including rationalising
	15 Working in 3D (Geometry)	To know properties of 3D shapes including nets, to draw plans and elevations To find volume of a prism To find volume and surface area of 3D shapes
	16 Handling data 2 (Statistics)	To use frequency diagrams Averages and spread 2 To draw and compare box plots and cumulative frequency graphs To draw and interpret scatter graphs and correlation To draw and interpret time series
	17 Calculations 2 (Number)	To calculate with roots and indices To do exact calculations To use standard form
	18 Graphs 2 (Algebra)	To plot cubic and reciprocal functions To plot exponential and trigonometric functions To interpret real-life graphs To find gradients and areas under graphs To know and use equation of a circle
	19 Pythagoras and trigonometry (Geometry)	To know and use Pythagoras' theorem including in 3d To know and use SOHCAHTOA including in 3d To know and use Sine and Cosine rules To use Vectors
11 Circles and constructions (Geometry)	To find circumference and area of a circle To find length of arc and area of a sector To know and apply circle theorems To perform standard constructions and use to solve loc problems	
Year 11	20 Combined events (Probability)	To identify sets To use possibility spaces To draw and use tree diagrams with and without replacement To use conditional probability
	21 Sequences (Algebra)	To find nth term of linear sequences To find nth term of quadratic sequences To recognise special sequences
	22 Units and proportionality (Ratio and proportion)	To use compound measures To convert between units To use direct and inverse proportion To find rates of change To solve growth and decay problems

Year 11 Revision SOL

Literacy (including reading)	Key words issued at the start of every topic. Problem solving questions integrated into lessons.
Spiritual, Moral, Social and Cultural	To analyse and represent data. To use a calculator efficiently and understand the errors introduced by rounding. To understand bearings and use scales. To solve problems involving proportion (eg. Recipes, enlargements). To draw plans and elevations of 3d shapes and find surface area and volume. To solve growth and decay problems such as calculating interest for saving and spending.
British Values	Use MWB in classrooms to develop independence, self-esteem and build confidence. Within lessons, respect is encouraged and anything other than this is challenged. Mistakes are welcomed and used as discussion points to address misconceptions. A variety of approaches to solving problems are taught and discussed. Students are encouraged to develop resilience (linked to developing life long learners). Students are given a choice of tasks in lessons (red, amber, green/bronze).
Cultural Capital	