



I N D E P E N D E N C E	KNOWLEDGE / LITERACY / NUMERACY / ORACY / AGENCY	CONTENT / TOPICS / CONCEPTS	Year 10: Support/Core/Higher Support: Fractions; Ratio; Standard form; Index Laws, Expand & simplify; Factorising; Solving equations; Subject of; Averages; Averages from a table; Inequalities; Frequency diagrams; Scatter graphs; Straight-line graphs; Quadratic & cubic graphs; Coordinate geometry; Compound measures; Real-life graphs; Pythagoras and trigonometry Core (from <i>Quadratic & cubic graphs</i> of Support & then): Bearings; Alternate & corresponding angles; Interior & exterior angles; Sampling; Pie charts; Probability; Probability trees; Plans & elevations; Constructions; Circles, arcs & sectors; Surface area & volume; Transformations; Vectors; Sequences; Forming and solving equations; Simultaneous equations Higher (from <i>Circles, arcs, and sectors</i> of Core & then): Recurring decimals; Fractional & negative indices; Product rule; Accuracy & bounds, Surds, Expanding & factorising; Rearranging equations; Sequences; Coordinate geometry; Surface area & volume; Transformations; Quadratics including the formula & iteration; Simultaneous equations; Conditional probability; Direct and inverse proportion; Similarity in 3D; Graphs of trigonometric functions; Further trigonometry; Sampling; Cumulative frequency and box plots; Histograms; Using graphs of circles, cubics, and quadratics; Gradient and area under graphs; Circle geometry			Year 11: Support/Core/Higher Support: Pythagoras & trigonometry; Bearings; Alternate & corresponding angles; Interior & exterior angles; Sampling; Pie charts; Probability; Probability trees; Plans & elevations; Constructions; Circles, arcs & sectors; Surface area & volume; Transformations; Vectors Core Set 4: Transformations; Vectors; Sequences; Forming and solving equations; Simultaneous equations; Direct and inverse proportion Core Set 3: Recurring decimals; Fractional and negative indices; Product rule; Upper and lower bounds; Surds including rationalising; Expanding and factorising; Rearranging equations; Quadratic sequences; Coordinate geometry; Surface area and volume; Transformations; Quadratics; Simultaneous equations; Conditional probability; Similarity in 3D; Graphs of trigonometric functions; Further trigonometry; Cumulative frequency and box plots; Histograms; Gradient and area under graphs; Algebraic fractions; Functions; Vectors Higher: from <i>Graphs of trigonometric functions</i> of Core Set 3 <i>After content complete, lessons will be bespoke focusing on weaknesses from prelims.</i>		
		VOCABULARY	quadratic simultaneous elimination perpendicular corresponding alternate independent dependent conditional theoretical	experimental arc sector segment bisect similar exponential invariant root solution	intercept qualitative quantitative elevation hypotenuse tangent congruent sampling bias representative	calculate describe draw sketch explain	express justify evaluate show prove	
		SKILLS	The skills for Y10 are the acquisition of mathematical knowledge in order to apply this understanding to the topics covered in Y10. Continuing from Y9, the Support and Core streams will be developing the skills needed to acquire knowledge from the <i>Crossover</i> topics; these are skills that need to be acquired in order to be successful in both the <i>Foundation</i> and the <i>Higher</i> tier at GCSE. For the Higher stream, students will complete the acquisition of skills needed for the <i>Crossover</i> topics in Term 1, then continue on to developing skills needed for the <i>Higher</i> tier exam by revisiting <i>Crossover</i> topics in further depth.			The skills for Y11 are the acquisition of mathematical knowledge in order to apply this understanding to the topics covered in Y11, as well as being able to retain and retrieve all past-taught knowledge needed for success in the Maths GCSE. Exam skills such as method selection are developed through the use of exam questions. Vocabulary taught ensures students can understand the command words used in the Maths GCSE.		
		ASSESSMENT	Regular I ACT quizzes followed by feedback. Summative assessments in Terms 2, 4 and 6 will test <i>all</i> knowledge acquired up to that point (including topics taught in Year 9); therefore, there will be three different assessments for each assessment point to reflect the three streams in Year 10 . Each assessment will have a calculator and a non-calculator element. Questions will be of GCSE standard and will be exam-style.			Regular I ACT quizzes followed by feedback. Prelim in Terms 2 and 4 will be a full set of past exam papers. Paper 1 will be non-calculator and Papers 2 and 3 will be calculator, all lasting 1 hour 30 minutes; mirroring the GCSE Maths Exams. Following the prelim in Term 4 lessons will be bespoke to each class		
		A T T I T U D E			Students are provided with opportunities to use their maths skills in real life contexts, applying and exploring the skills required in solving various problems. For example, students are encouraged to analyse data and consider the implications of misleading or biased statistical calculations.			R E S I L I E N C E
Understanding others, behaviour and attitudes, SMSC, PHSE						Character, personal Development, wellbeing and CIAG		
						Students are continually taught and are expected to demonstrate skills of perseverance through a “leaving no question unanswered” policy. Students are required to attempt every question during assessments following a “no-opt out” policy to questioning in lessons. Mistakes are celebrated as learning opportunities to encourage this. Students have extra-curricular opportunities through the UMKT Maths Challenge and external trips.		