

Mathematics Year Ten	Curriculum Intent: The Year 10 curriculum will consolidate and extend the differing areas of mathematics covered during Key Stage 3. Students will continue to study Number, Algebra, Geometry and Data Handling as they prepare for the GCSE Mathematics examinations at the end of Year 11. Opportunities to revisit key concepts through retrieval practice will be frequent parts of the curriculum. Key knowledge and skills will be developed with the use of problem solving activities and the frequent use of ‘problem solving’ style GCSE questions. Students will be required to identify which part of their knowledge and skills will be best suited to the question.											
	Term One		Term Two		Term Three		Term Four		Term Five		Term Six	
Knowledge (Red indicates ‘Higher tier only’ topic areas)	<u>Number</u> • Powers and roots • Reciprocals • Laws of indices • Negative and Fractional Indices • Standard form conversions and calculations <u>Algebra</u> • Writing algebraic expressions • Simplifying algebraic expressions • Expanding single and double brackets • Expanding triple brackets • Factorising into single and double brackets • Substitution into formulae		<u>Geometry</u> • Basic angle fact • Angles on parallel lines • Angles in polygons • Bearings • Loci and constructions • Circle theorems <u>Number</u> • Currency conversion • Fraction, decimal and percentage equivalence • Percentage of amount • Percentage increase/decrease • Percentage change • Reverse percentages • Compound and simple interest • Growth and decay		<u>Geometry</u> • Units of measurement • Perimeter and area (rectangle, triangle, parallelogram, trapezium) • Area of compound shapes • Circumference and area of a circle <u>Number</u> • Simplifying surds • Surds calculations • Rationalising the denominator		<u>Number</u> • Simplifying Ratios • Sharing in a ratio • Unitary Method • Scale drawings • Proportion • Direct and inverse proportion algebraically		<u>Algebra</u> • Solving linear equations (include fractions, negatives, brackets and unknowns on both sides) • Solving quadratic equations • Rearranging formulae – basics • Rearranging formulae - advanced • Completing the square • Algebraic fractions <u>Algebra</u> • Vectors		Consolidation and preparation for end of year examinations. <u>Algebra</u> • Generating sequences • Nth term of linear sequences • Nth term of quadratic sequences	
Skills	Use and apply standard technique	Reason, interpret and communicate mathematically	Solve problems within mathematics and in other contexts	Use and apply standard technique	Reason, interpret and communicate mathematically	Solve problems within mathematics and in other contexts	Use and apply standard technique	Reason, interpret and communicate mathematically	Solve problems within mathematics and in other contexts			
Understanding	Completion of exam questions and problem solving activities to develop application of knowledge and skills			Completion of exam questions and problem solving activities to develop application of knowledge and skills			Completion of exam questions and problem solving activities to develop application of knowledge and skills			Completion of exam questions and problem solving activities to develop application of knowledge and skills		
Interleaving	Regular consolidation of all prior teaching Reviewing skills for future learning Use of Mathsbox 10 and 20 question starters			Regular consolidation of all prior teaching Reviewing skills for future learning Use of Mathsbox 10 and 20 question starters			Regular consolidation of all prior teaching Reviewing skills for future learning Use of Mathsbox 10 and 20 question starters			Regular consolidation of all prior teaching Reviewing skills for future learning Use of Mathsbox 10 and 20 question starters		
Assessment	Regular ‘low stakes’ testing in class Formal assessment in November			Regular ‘low stakes’ testing in class Formal assessment in March			Regular ‘low stakes’ testing in class End of Year Exams in June					