

Year 9 Mathematics	Subject Intent	Our aim is to deliver an appropriately ambitious curriculum that secures subject knowledge through depth, breadth, and ambition for <u>all</u> pupils. Our carefully chosen curriculum provides atomisation, careful sequencing, alignment of content, instruction, and assessment. Pupils learn to become fluent in the fundamentals of mathematics to access complex problems and develop conceptual understanding. Pupils apply their understanding to routine and non-routine problems with increasing sophistication. We fundamentally believe in mastering and building a foundation of Mathematics to allow more complex mathematics to be taught and learnt with fidelity, accuracy, and pace.
	KS3 Subject Narrative	Our KS3 curriculum is a sequence of interconnected mathematics concepts to allow pupils to develop connected mathematical ideas. Pupils are continuously assessed on prior knowledge when being taught new knowledge – which are vitally important for more complex mathematics. We sequence the curriculum by identifying high leverage topics which more complex mathematics is taught on e.g., place value, four operations, number theory.
	KS4 Subject Narrative	KS3 topics and knowledge are revisited in greater complexity in years 10 and 11. The Year 9 curriculum is an opportunity to revise and build more complex mathematical concepts committed to long term memory in Year 7 and 8. E.g., Place value & Number properties allows pupils to identify the procedural impact of \times/\div numbers by Powers of 10 and the impact of size on a number's place value. The Year 10 and 11 curriculum includes topics which are mixed concepts e.g., Linear graphs is the application of algebraic notation and linear equations in the context of coordinate geometry
	Routine Assessment Strategies	Year 9's use knowledge retrieval and procedural starters and have a fortnightly low stakes cumulative quiz which the later is marked by teachers and stored on a central spreadsheet to measure progress. Each fortnightly quiz is a SAR (Strength Action Response) task where pupils are given feedback before and after their low stake cumulative quiz.

Year 9 Mathematics	WHY THIS, WHY NOW?	Autumn Term – Introduction to Place Value & Addition	Spring Term – Introduction to Multiplication & Number Theory	Summer Term – Introduction to Fractions conceptually & procedurally
	Key Subject Knowledge	<ul style="list-style-type: none"> Place Value & Number Properties Standard form 4 Rules - Decimals Indices, Powers & Roots Factors, Multiples & Primes Rounding and Estimation Ratio (Basic) FDP Fractions Percentages Proportion 	<ul style="list-style-type: none"> Algebraic Notation Simplifying & Index Laws Expanding & Factorising Expressions & Substitution Linear Equations Linear Inequalities Perimeter & Area Rearranging Formulae Pythagoras 	<ul style="list-style-type: none"> Angle Facts Parallel Lines Probability Sequences Right-angled trigonometry
	Subject Competencies	<ul style="list-style-type: none"> Pupils learn the most complex applications of number theory and the use of different mediums of number. E.g., raising a fraction to a unit fraction, non-unit fraction and negative fraction powers Pupils learn ratio with interleaved angle facts, area and perimeter where prior knowledge of all three topics was taught in Year 8 	<ul style="list-style-type: none"> Application of the foundation of algebraic notation with the four operations Application of factors and multiples in the application of expanding and factorising Maintaining equivalence with respect to solving linear equations. 	<ul style="list-style-type: none"> Pupils learn the most complex applications of angle geometry on parallel lines, and the application of linear equations in the context of geometry. Pupils are introduced to probability for the first time Pupils are introduced to right-angled trigonometry for the first time. They learn it with Pythagoras interleaved, and area the perimeter
	Summative Assessments (high stakes assessments which test cumulative knowledge)	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Mid-year test covering Y9 content to date – the test covers Autumn term and Year 7 and 8's taught curriculum 	<ul style="list-style-type: none"> End of year test covering Y9 content to date – Autumn term, Spring term and a portion of summer term
How does this pave the way for future study?	<ul style="list-style-type: none"> Pupils finish learning the foundation for the most complex mathematics topics covered in Y10 and Y11. Pupils learn ratio and proportion which builds a foundation for further application such as algebraic direct and indirect proportion 	<ul style="list-style-type: none"> Pupils learn rearranging formulae which is vital for future application Year 10 with respect to linear graphs, gradient, and quadratic graphs. This is further applied in Y10 HT3 when working with volume and surface area 	<ul style="list-style-type: none"> Pupils will learn non-right-angled trigonometry in Year 11, and more angle facts and parallel lines in the application of circle theorems. 	