

Year 8 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 8's use knowledge retrieval and procedural starters and have a fortnightly low stakes cumulative quiz which the latter 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 8 Mathematics	WHY THIS, WHY NOW?	Autumn Term – Introduction to Number Theory and number procedures	Spring Term – Introduction to measurements, early geometry, and circles	Summer Term – Introduction to early statistics
	Key Subject Knowledge	<ul style="list-style-type: none"> Indices Prime Factorisation Rounding Fractions Directed Numbers - Revision Linear Equations Coordinates and basic graphs 	<ul style="list-style-type: none"> Units of measurements Angles Circumference Proportional Reasoning Fractions, Decimals and Percentages Ratio 	<ul style="list-style-type: none"> Area of composite shapes Presenting and Interpreting data Average Two-way tables 3D visualisation Volume
	Subject Competencies	<ul style="list-style-type: none"> Pupils learn more complex procedures within the topic of number such as prime factorisation manipulation, truncation and the four operations with negative numbers. This knowledge is applied in basic algebra and coordinates 	<ul style="list-style-type: none"> Pupils learn different units of measurements across different dimensions, within geometry in terms of angles, and arc length and area for circles Pupils are introduced to early ratio 	<ul style="list-style-type: none"> Pupils are introduced to early statistics where they learn how data is presented and interpreted from different forms. Pupils learn procedurally how to calculate different averages
	Summative Assessments (high stakes assessments which test cumulative knowledge)	<ul style="list-style-type: none"> Corrective Mathematics Placement Testing (Addition & Subtraction modules) 	<ul style="list-style-type: none"> Mid-year test covering Y8 content to date – the test covers Autumn term and Year 7 taught curriculum 	<ul style="list-style-type: none"> End of year test covering Y8 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 learn the main foundation of complex mathematics procedures required for algebra e.g., manipulating fractions and directed numbers in the context of solving linear equations 	<ul style="list-style-type: none"> Pupils learn early stages of geometry which is developed further in Year 9 and 10. Pupils learn the foundation for geometry, circles, and ratios 	<ul style="list-style-type: none"> Pupils learn the fundamental KS3 topics within data and statistics. Pupils' initial introduction to how data is presented and interpreted allows for scatter graphs, sampling and stem and leaf diagrams in Year 10