Key Stage 3 Maths: Curriculum Outline

Our Maths curriculum follows the Mathematics Mastery programme. The curriculum is designed with three principles in mind, with the aim to teach students the conceptual knowledge needed to solve mathematical problems successfully and with sufficient fluency to apply this knowledge to new and unfamiliar problems. Firstly, we focus on developing students' conceptual understanding of mathematical knowledge, rather than just computation skills. This means that, rather just practice procedures for solving problems, we want our students to have a clear, conceptual grasp of the underlying ideas or principles that shape mathematics by using multiple representations (concrete, pictorial and abstract) throughout the curriculum. Secondly, we explicitly teach mathematical language and vocabulary to strengthen and support students' mathematical reasoning and communication. Across our curriculum, students are expected to master the correct terminology, use appropriate signs and symbols, and demonstrate verbal reasoning by contributing to class discussion. Thirdly, our curriculum cultivates our students' capability to think mathematically; which is to say, to develop mathematical 'habits of mind' such as being systematic and seeking out patterns. Importantly, we believe that every one of our students has an entitlement to learn the whole curriculum: we support all students to access all of the key concepts, whilst allowing for differentiation through different levels of depth or mastery of learning. Across Key Stage 3, students are taught in five 50 minute lessons each week.

Year	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
7	Number systems **Factors and multiples** Axioms and Arrays **Arithmetic skills**	Order of operations **Positive and negative numbers** Angles **Classifying 2-D shapes**	Algebra introduction **Coordinates** Area of 2-D shapes	Prime factorisation **Conceptualising fractions**	Calculating with fractions and decimals **Ratio** Percentages	Transformations **Constructions**
8	Sequences **Equations** Inequalities	Linear graphs **Accuracy and estimation**	Ratio **Real life graphs and rate of change** Proportion	Univariate and Bivariate data	Angles in parallel lines **Angles in polygons** Bearings	Circles and composite shapes **Volume and surface area of prisms**
9	Probability **Sample spaces**	Linear simultaneous equations	Constructions and Loci **Congruence** Pythagoras' Theorem	Similar shapes **Surds** Trigonometry	Quadratics	Indices **Standard form** Growth and decay