Year			7	8	9	10	11
Stage			**Building** a Foundation	Building and **Developing**	Developing and **Embedding**	Embedding and **Applying**	Applying and **Practise**
Intent			*Pupils start to build on the basic skills acquired in KS2 for a foundation in all mathematic applications*	*Pupils continue to build a mathematical foundation and start to develop application skills through structured problem solving activities*	*Pupils **embed** previous learning and start to analyse and problem solve independently*	*Pupils continue to embed skills gained from the foundation stage and apply, analysis and evaluate*	*Pupils apply knowledge and show competency through practice*
Implementation	**Term**	**1**	Number, Calculating	Number and number system, Calculating	Basic Number, Factors Multiples, Angles, Scale diagrams, Basic Algebra	*Standard Form,* Calculations with Percentages, Measures, **Surds, Algebra**	*Volume* , Algebra quadratics rearranging formulae and identities, **Trigonometry recap and extension, Growth and Decay**
		2	Checking, Counting and comparing, Visualising	Visualising and constructing, Understanding risk, algebraic proficiency	Proportional reasoning, pattern sniffing	Equations, factorising, sequencing, Angles, Pythagoras' Theorem, Trigonometry	*Inequalities, Algebra graphs, sketching graphs* **Equation of a circle, Further equations and Graphs, Direct and Inverse Proportion**
		CKN Assessment	End of topic reviews and cumulative assessment	End of topic reviews and cumulative assessment	End of topic reviews and cumulative assessment	End of topic reviews PPE Mock assessment	End of topic reviews PPE Mock assessment
		3	Properties of shape, Algebraic Proficiency, Exploring FDP, Proportional Reasoning	Exploring FDP, proportional reasoning	Solving equations and inequalities I, Calculating space	Fractions, percentages, ratio, proportion, Area, Volume, accuracy and bonds	*Direct and Inverse Proportion, Trigonometry,* **Inequalities, Vectors, Further Sketching Graphs**
		4	Patterns, Measuring Space, Angles, Calculating FDP	Pattern Sniffing, Investigating angles, calculating FDP, solving equations	Conjecturing, Algebra: Visualising	*Perimeter, area, circles, accuracy and bonds, revision of topics*	*Solving Quadratic Equations, Quadratic Graphs, Growth and Decay, Vectors,* **Sine and Cosine Rules, Transforming Functions, Numerical Methods, Circle Theorems, Gradients and Rates of Change, Pre calculus, Area under a curve, Algebraic Fractions**
		5	Solving equations, Calculating Space, Movement	Calculating Space, Algebraic proficiency - visualising	Algebra: Visualising (continued), Solving equations and inequalities II	*Volume of cylinders, cones and spheres, real-life graphs, Linear quadratics, coordinate geometry*	**Revision Activities**
		CKN Assessment	End of topic reviews and cumulative assessment	End of topic reviews and cumulative assessment	End of topic reviews and cumulative assessment	End of topic reviews PPE Mock assessment	**N/A**
		6	Presenting data, Measuring data	Understanding risk 2, presenting data, measuring data	Understanding Risk, Presentation of data	*Real-Life Graph, Probability, sk* **etching Graphs, Linear and Quadratic Equations and their graphs**, Simultaneous equations, inequalities	**Exam Season**
Impact			*Following this program, students will become fluent in the fundamentals of mathematics, through varied and frequent practice with increasingly complex problems, pupils develop conceptual understanding and the ability to recall and apply knowledge. Pupils follow a line of enquiry, conjecturing relationships and generalisations, developing an argument, justification or proof using mathematical language and reasoning. Puipls will be able to solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions and transferring skills to cross curricula subjects including science, geography and food technology. We regularly assess students against assessment criteria relevant to their ability and schemes of learning are planned to ensure progression for all individuals. Information gathered is used to build a clear profile of the individual strengths and weaknesses of each student. Feedback to students on how to progress is therefore personalised to meet their individual needs. Strategies are quickly put into place after careful analysis of assessment data to aid progression.*				