Subject	Maths		Year		7
Term	**Autumn 1**		**Spring 1**		**Summer 1**
Unit of learning	**Statistics and Number**		**Number and Algebra**		**Number**
Knowledge	Pictograms, bar charts and line graphs Collecting data Mean, median, Mode and Range Place value and decimals Addition and Subtraction Multiplication Division Order of operations		Place Value and Decimals Rounding and Estimating Addition and Subtraction Multiplication Division Directed Numbers Inequalities Sequences		Calculations with Fractions Basic Percentages Equivalent Fractions, Decimals and Percentages Probability (Single Event)
Term	**Autumn 2**		**Spring 2**		**Summer 2**
Unit of learning	**Algebra and Geometry**		**Geometry**		**Number and Ratio and Proportion**
Knowledge	Function machines Missing number problems 2D Shapes Angles Months of the year/days of the week Time Co-ordinates		Transformations Area and Perimeter 3D shapes Volume and Surface Area Real life graphs		Number problem solving Fractions of an amount Ratio and Proportion Factors and Multiples Primes Powers and Roots Metric conversions
Rationale:	Students will consolidate and extend their knowledge from KS2. They will have the opportunity to become fluent in the fundamentals of mathematics through varied practise and recall, reason mathematical and solve problems. Pictograms and graphs to build confidence. Mean, median, mode and range using mental maths skills. Calculations follow place value. Repetition of key number topics and consolidate their numerical and mathematical capability from key stage 2 and extend their understanding of the number system and place value.				

Subject	Maths		Year		8
Term	**Autumn 1**		**Spring 1**		**Summer 1**
Unit of learning	**Statistics and Number**		**Number and Algebra**		**Number and Probability**
Intent	Pictograms, bar charts and line graphs Collecting data Mean, median, Mode and Range Place value and decimals Addition and Subtraction Multiplication Division Order of operations		Place Value and Decimals Rounding and Estimating Addition and Subtraction Multiplication Division Directed Numbers Inequalities Sequences Transformations		Calculations with Fractions Percentages Equivalent Fractions, Decimals and Percentages Probability
Term	**Autumn 2**		**Spring 2**		**Summer 2**
Unit of learning	**Algebra and Geometry**		**Geometry**		
Intent	Functions Express missing number problems algebraically. Forming and solving equations Substitution 2D Shapes Angles Co-ordinates		Area and Perimeter 3D shapes, faces, edges and verticies Volume and Surface Area Real life graphs		Number problem solving Fractions of an amount Ratio and Proportion Factors and Multiples Primes Powers and Roots Conversions Scale diagrams and Bearings
Rationale:	Pictograms and graphs to build confidence. Mean, median, mode and range using mental maths skills. Calculations follow place value. consolidate their numerical and mathematical capability from key stage 2 and Year 7 and extend their understanding of the number system and place value to include decimals, fractions, powers and roots. They will have the opportunity to become fluent in the fundamentals of mathematics through varied practise and recall, reason mathematical and solve problems.				

Subject	Maths		Year		9
Term	**Autumn 1**		**Spring 1**		**Summer 1**
Unit of learning	**Number**		**Number and probability**		**Geometry**
Intent	Place value The 4 operations Order of operations Directed numbers Rounding Powers and roots Factors and Multiples, HCF, LCM		Equivalent Fractions, Decimals Calculations with Fractions Percentages Probability Relative Frequency		Constructions Pythagoras Volume and Surface Area Circles Transformations (including congruence and similarity)
Term	**Autumn 2**		**Spring 2**		**Summer 2**
Unit of learning	**Geometry and statistics**		**Number and geometry**		**Number, multiplicative reasoning and graphs**
Intent	2D shapes Angles Area and Perimeter Frequency tables Mean, Mode, Median and Range Pictograms, bar charts and line graphs Collecting Data Pie Charts Scatter graphs		Primes and Prime Factor Decomposition Simplify Expand Factorise Conversions Solving equations sequences		Inequalities Number Problems Fractions of an amount Ratio and Proportion Coordinates Real life graphs
Rationale:	Place value leads onto 4 operations/directed number leads. Area, perimeter surface area and volume can use skills from autumn 1 (4 operations including decimals) Fractions of amounts and ratio together to allow understanding of multiplicative reasoning FDP before probability. Sequences links with solving equations and functions Powers and roots revisited with Pythagoras consolidate their numerical and mathematical capability from year 7 and year 8. They will have the opportunity to become fluent in the fundamentals of mathematics through varied practise and recall, reason mathematical and solve problems				