

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Algebraic Thinking						Place Value and Proportion					
	Sequences		Understand and use algebraic notation		Equality and equivalence		Place value and ordering integers and decimals			Fraction, decimal and percentage equivalence		
Spring	Applications of Number						Directed Number			Fractional Thinking		
	Solving problems with addition & subtraction		Solving problems with multiplication and division		Fractions & percentages of amounts		Four operations with directed number			Addition and subtraction of fractions		
Summer	Lines and Angles						Reasoning with Number					
	Constructing, measuring and using geometric notation			Developing geometric reasoning			Developing number sense		Sets and probability		Prime numbers and proof	

Autumn Half Term 1 – Algebraic Thinking		
Block 1 – Weeks 1 and 2	Block 2 – Weeks 3 and 4	Block 3– Weeks 5 and 6
Exploring sequences <ul style="list-style-type: none"> Describe and continue sequences in diagram and number forms, both linear and non-linear Compare numerical and graphical forms 	Understanding and using algebraic notation <ul style="list-style-type: none"> Use single function machines and series of two function machines with numbers, bar models and letters Use and interpret algebraic notation Understand and use inverse operations Form and substitute into expressions, including to generate sequences. Represent functions graphically 	Equality and equivalence <ul style="list-style-type: none"> Understand equality Use fact families Form and solve one-step equations Understand equivalence of algebraic expressions Collect like terms
Notes/Links/Interleaving <ul style="list-style-type: none"> Calculators should be used throughout this unit, building in teaching efficient use of calculators and informal estimation All material in this unit is revisited and extended in forthcoming units 		Additional Higher Content <p>This introductory unit is designed to be accessed by all students – exemplification documents will illustrate tasks suitable for students of different levels of prior attainment including challenge for higher attainers.</p>

Autumn Half Term 2 – Place Value and Proportion	
Block 4 – Weeks 7 to 9	Block 5 – Weeks 10 to 12
Place value and ordering <ul style="list-style-type: none"> Recognise and use integer place value up to one billion Recognise and use decimal place value to at least hundredths Work out intervals and use number lines Compare and order numbers Use ordered lists to find the range and the median of a set of numbers Round numbers to positive powers of ten Round numbers to one significant figure 	Fraction, decimal and percentage equivalence <ul style="list-style-type: none"> Represent tenths and hundredths on diagrams and number lines Interchange between fractions, decimals and percentages for multiples of one tenths and one quarter Interpret pie charts Equivalent fractions Convert between other fractions, decimals and percentages
Notes/Links/Interleaving <ul style="list-style-type: none"> Solve equations with fractions, including fractional coefficients Consider sequences with fractions 	Additional Higher Content <ul style="list-style-type: none"> Explore and use standard index form Explore fractions above one Convert multiples of one eighth to decimals and percentages

Spring Half Term 1 – Application of Number		
Block 1 – Weeks 1 and 2	Block 2 – Weeks 3 to 5	Block 3 – Week 6
<p>Addition and Subtraction</p> <ul style="list-style-type: none"> Use mental and formal written methods of addition with integers and decimals, including choosing the most appropriate method Solve problems in the context of perimeter, money and frequency trees and tables Solve problems in the context of bar charts and line charts 	<p>Multiplication and division</p> <ul style="list-style-type: none"> Multiply by 10, 100 and 1000, 0.1 and 0.01, and convert metric units Use mental and formal written methods of multiplication and division Find the HCF and LCM of small numbers Evaluate areas of triangles, rectangles and parallelograms Find the mean of a set of numbers Find simple fractions and percentages of amounts Begin to use the order of operations 	<p>Fractions and percentages of amounts</p> <ul style="list-style-type: none"> Work out simple fractions and percentages of amounts, with and without a calculator
<p>Notes/Links/Interleaving</p> <ul style="list-style-type: none"> Perimeter problems to revisit equations and simplifying Tables to include distance charts and simple timetables Revisit rounding Choosing when to use mental, written or calculator methods Order of operations to be revisited with negative numbers 		<p>Additional Higher Content</p> <ul style="list-style-type: none"> Explore addition of numbers given in standard form Evaluate the area of a trapezium Find the HCF and LCM of algebraic expressions Find areas involving algebraic expressions Use fractions greater than 1

Spring Half Term 2 – Directed Number and Fractional Thinking	
Block 4 – Weeks 7 to 9	Block 5 – Weeks 10 to 12
<p>Directed Number</p> <ul style="list-style-type: none"> Order directed numbers, both in contextualised and abstract situations Revisit four operations to include directed number Use a calculator with directed number Solve two-step equations (with and without a calculator) Use the order of operations 	<p>Adding and subtracting fractions</p> <ul style="list-style-type: none"> Represent tenths and hundredths on diagrams and number lines Convert mixed numbers and improper fractions Add and subtracting fractions with <ul style="list-style-type: none"> the same denominator one denominator a multiple of the other different denominators Add and subtract fractions and decimals e.g. $\frac{3}{4} + 0.2$
<p>Notes/Links/Interleaving</p> <ul style="list-style-type: none"> Include inequality number lines Revisit sequences, substitution and equations 	<p>Additional Higher Content</p> <ul style="list-style-type: none"> Negative square roots Higher powers

Summer Half Term 1 – Lines and angles	
Block 1 – Weeks 1 to 3	Block 2 – Weeks 4 to 6
<p>Construction and measuring</p> <ul style="list-style-type: none"> • Understand and use letting and labelling notation for lines and angles • Draw and measure lines and angles accurately • Classify angles • Identify and draw parallel and perpendicular lines • Recognise types of triangle, quadrilateral and other polygons • Construct triangles given SSS, SAS, ASA • Draw and interpret pie charts 	<p>Geometric Reasoning</p> <ul style="list-style-type: none"> • Calculate and use angles at a point, angles on a straight line and vertically opposite angles • Calculate missing angles in triangles and quadrilaterals
<p>Notes/Links/Interleaving</p> <ul style="list-style-type: none"> • Revisit simplifying and perimeter in e.g. polygons • Form and solve equations in geometric settings • Revisit mental and formal methods of addition and subtraction, including with decimals 	<p>Additional Higher Content</p> <ul style="list-style-type: none"> • Understand and use parallel lines rules • Understand and use the sum of angles in any polygon • Derive simple proofs using angles rules

Summer Half Term 2 – Reasoning with number		
Block 3 – Weeks 7 and 8	Block 4 – Weeks 9 and 10	Block 5 – Weeks 11 and 12
<p>Developing Number Sense</p> <ul style="list-style-type: none"> • Mental arithmetic strategies • Use known facts to derive other facts, • Evaluate an algebraic expression given a related fact • Use estimation 	<p>Sets and Probability</p> <ul style="list-style-type: none"> • Understand and use set notation • Draw and interpret Venn diagrams • Understand and use the language of probability • Calculate the probability of a single event • Use the sum of probabilities of an event is 1 	<p>Prime numbers and proof</p> <ul style="list-style-type: none"> • Recognise prime, square and triangle numbers • Express a number as a product of prime factors • Powers and roots • Make and test conjectures • Understand and use counterexamples
<p>Notes/Links/Interleaving</p> <ul style="list-style-type: none"> • Revisit FDP equivalence, and simple FDP addition and subtraction • Revisit factors and multiples, both numerically and algebraically 		<p>Additional Higher Content</p> <ul style="list-style-type: none"> • Understand and use the complement of a set • Use prime factors to find HCFs and LCMs