

	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	Understanding and using 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			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 1 – Algebraic Thinking

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Exploring sequences</p> <ul style="list-style-type: none"> Describe and continue sequences in diagram and number forms, both linear and non-linear 	<p>Understanding and using algebraic notation</p> <ul style="list-style-type: none"> Using single function machines and series of two function machines with numbers, bar models and letters Forming and substituting into expressions, including generating sequences. Representing functions graphically 			<p>Equality and equivalence</p> <ul style="list-style-type: none"> Understanding equality and fact families Forming and solving one-step equations Understanding equivalence Collecting like terms 	

<p>Notes/Links/Interleaving</p> <ul style="list-style-type: none"> Use of calculator throughout, including informal estimation All revisited and extended in the next unit 	<p>Additional Higher Content</p> <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.</p>
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Autumn 2 – Place Value and Proportion

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Place value and ordering</p> <ul style="list-style-type: none"> Describe and continue sequences in diagram and number forms, both linear and non-linear Integer place value up to one billion Decimal place value to hundredths Working out and using number lines Comparing and ordering numbers The range and the median Rounding to positive powers of ten and to one significant figure 			<p>Fraction, decimal and percentage equivalence</p> <ul style="list-style-type: none"> Representing tenths and hundredths on diagrams and number lines Interchanging between fractions, decimals and percentages for multiples of tenths and quarters Interpreting pie charts Equivalent fractions Converting between any fraction, decimal and percentage 		

<p>Notes/Links/Interleaving</p> <ul style="list-style-type: none"> Revisit simplifying and equations with negatives Equations with fractions, including fractional coefficients Revisit FDP equivalence Fractional sequences 	<p>Additional Higher Content</p> <ul style="list-style-type: none"> Negative square roots Add and subtract fractions with any denominators Add and subtract simple algebraic fractions
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Spring 1 – Application of Number

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Addition and Subtraction <ul style="list-style-type: none"> Use formal methods of addition with integers and decimals Solve problems in the context of perimeter, money and frequency trees and tables Solve problems in the context of perimeter, money and frequency trees and tables 		Multiplication and division <ul style="list-style-type: none"> Multiplying by 10, 100 and 1000; unit conversions Formal methods of multiplication and division HCF and LCM Areas of triangles, rectangles and parallelograms Finding the mean Finding fractions and percentages of amounts Solving two-step equations (with and without a calculator) Introduction to the order of operations 			
Notes/Links/Interleaving <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 			Additional Higher Content <ul style="list-style-type: none"> Addition in standard form Area of a trapezium Algebraic HF/LCM Algebraic Area Improper fractions 		

Spring 2 – Directed Number and Fractional Thinking

Week 2	Week 2	Week 3	Week 4	Week 5	Week 6
Negative Numbers <ul style="list-style-type: none"> Ordering directed numbers with and without context Revisit four operations to include directed number Using a calculator with directed number Order of operations 			Adding and subtracting fractions <ul style="list-style-type: none"> Representing tenths and hundredths on diagrams and number lines Adding/subtracting fractions with a common denominator, including with answers above one Revisit equivalent fractions Adding and subtracting fractions with simple different denominators e.g. quarters/eighths, thirds/sixths Mixed questions e.g. $\frac{3}{4} + 0.2$ 		
Notes/Links/Interleaving <ul style="list-style-type: none"> Include inequality number lines Revisit sequences, substitution and equations 			Additional Higher Content <ul style="list-style-type: none"> Exploring and using standard index form Exploring fractions above one 		

Summer 1 – Lines and angles

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Drawing, measuring and notation <ul style="list-style-type: none"> Drawing and measuring lines and angles using ruler and protractor Understanding and using notation for lines and angles Understand parallel and perpendicular Recognise types of triangle, quadrilateral and other polygons Drawing triangles given SSS, SAS, ASA Drawing and interpreting pie charts 			Geometric Reasoning <ul style="list-style-type: none"> Calculating using angles at a point, angles on a straight line and vertically opposite angles Calculating missing angles in triangles and quadrilaterals 		
Notes/Links/Interleaving <ul style="list-style-type: none"> Perimeter problems to revisit equations and simplifying Forming and solving equations in geometric settings (including simplifying) Revisiting formal methods of addition and subtraction, including with decimals 			Additional Higher Content <ul style="list-style-type: none"> Addition in standard form Parallel lines rules Angles in a polygon Proof of angles rules e.g. angles in a triangle 		

Summer 2 – Reasoning with number

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Number Sense <ul style="list-style-type: none"> Mental arithmetic strategies Using known facts to derive other facts, including algebraic expressions 		Sets and Probability <ul style="list-style-type: none"> Understanding and using set notation Venn diagrams Probability of a single event 		Prime numbers and proof <ul style="list-style-type: none"> Types of number, including prime factorisation Powers and roots Using counterexamples 	
Notes/Links/Interleaving <ul style="list-style-type: none"> Revisiting FDP Revisiting expressions e.g. given $7n = 150$ what is the value of $21n$? 			Additional Higher Content <ul style="list-style-type: none"> Venn diagrams for HCF and LCM 		