Elements Curriculum Plan
Subject: Mathematics

B[Building Block 3 ≈ KS3 (Y7)			
Half-Term	**Topic/Content**	**Skills**	**Personal Development**
Autumn 1	Place Value and ordering	• Recognise and use integer place value up to 1 billion • Recognise and use decimal place value up to at least hundredths • Work out intervals and use number lines • Compare and order numbers • Use ordered lists to find range and median of a set of numbers • Round numbers to positive powers of ten • Round numbers to one significant figure	Communication Problem Solving Life Skills Staying Safe
	Addition and Subtraction	• Use mental and formal written methods of addition with integers and decimals- using most appropriate methods • Solve problems in context such as perimeter, money and use frequency trees and tables • Solve problems in the contexts of bar charts and other graphs	Communication Problem Solving Life Skills Staying Safe
	Multiplication and division	• Use mental and formal written methods of multiplication and division. • Multiply and divide by 10,100,1000, and convert between different metric units • Understand multiples and factors and find LCM and HCF of small numbers • Find the mean of a set of numbers • Find simple fractions and percentages of amounts • Understand and use order of operations	Communication Problem Solving Life Skills Leadership
Assessment			
Autumn 2	Exploring Number	• Recognise prime, square, triangle and cube numbers • Express a number as a product of prime factors • Understand powers and roots	Communication Problem Solving Life Skills Teamwork

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		• Make and test conjectures • Use and understand counterexamples • Find simple fractions and percentages of amounts	
	Directed Number	• Use a number line from -20 to +20 • Order directed numbers in both context and abstract • Revisit four operations using directed number • Use a calculator	Communication Problem Solving Life Skills Staying Safe
	Fractional Thinking	• Represent tenths, hundredths on diagrams and number lines • Interchange between fractions , decimals and percentages • Change between mixed and improper fractions • Find equivalent fractions and simplify fractions • Use FDP in contexts such as probability and pie charts • Find fractions of amounts • Multiply and divide fractions • Add and subtract fractions • Order fractions	Communication Problem Solving Life Skills Staying Safe
Assessment			
Spring 1	Exploring Sequences	• Recognise common sequences, odd, even, square, triangle numbers • Recognise that multiplication tables are sequences, which can be transposed • Describe and continue sequences in diagram and number forms both linear and non linear	Communication Problem Solving Teamwork

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	Understanding and using algebraic notation	• Use single function and two function machines, with numbers, bar models and letters • Use and interpret algebraic notation • Understand and use inverse operation • Form and substitute into expressions, including to generate sequences • Represent functions graphically	Communication Problem Solving
Assessment			
Spring 2	Solving equations and Equality and equivalence	• Form and solve single step equations- first with boxes, then with letters • Form and solve 2 step equations again with boxes and letters • Understand equality • Use and understand fact families • Simplify expression and collect like terms.	Communication Problem Solving
	Lines and angles	• Understand and use angle and line lettering and notation • Draw and measure lines and angle accurately • Classify angles • Identify parallel and perpendicular lines • Recognise and know the properties of types of triangle, quadrilaterals and other polygon • Calculate and use missing angles, around a point, on a line, using vertically opposite angles • Calculate missing angles in triangles and quadrilaterals	Communication Problem Solving Life Skills
Assessment			
Summer 1	Constructions	• Use a ruler and protractor and a pair of compasses to draw lines and circles effective • Construct triangles given SSS, SAS and ASA • Draw and interpret pie charts • Create and explore tessellations	Communication Problem Solving Life Skills Staying Safe
	Sets and Probability	• Understand and use set notation	Communication

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		- Draw and interpret Venn diagrams - Understand and use the language of probability - Calculate the probabilities of a single event	Problem Solving Life Skills Staying safe Self- awareness
Assessment			
Summer 2	Developing Number sense	- Mental arithmetic strategies - Use known facts to derive other facts - Evaluate algebraic expression and related fact - Use estimation and apply strategies for determining sensible answers	Communication Problem Solving Life Skills
	Project	- Developing mathematical strategies and applying to an investigation or project to tie in many of the aspects of the block. - Developing A02 and A03 skills	Communication Problem Solving Life Skills Self-Motivation Teamwork
Assessment			

Rationale –

BB3-5

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BB6ab

As above, plus:

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