Year 6 – Spring Term

Some units such as Algebra and Measure are new to this term; other units have some new elements but generally will offer children the chance to review steps covered in the Autumn term and to apply these skills at an increasingly challenging level, incorporating more opportunities for the children to solve problems, investigate, hypothesise, explain and reason about Maths

Unit 1:	**Unit 2:**	**Unit 3:**	**Unit 4:**	**Unit 5:**
Place Value - 7 lessons	Addition/subtraction – 4 lessons	Multiplication/division – 7 lessons	Algebra – 9 lessons	Fractions/decimals/percentage – 9 lessons
• partition numbers to ten million and with up to 3 decimal places • use knowledge of place value to add 10, subtract 300, add 7/100 etc or to add near multiples of 100 like 299, for example • read and write and order whole numbers to 10,000,000 • compare and order any whole, decimal number or negative number • Solve problems involving rounding numbers to the nearest power of 10 or decimal place • use rounding to estimate whether an answer is correct • apply understanding of negative numbers in different contexts	• Use formal method to add and subtract any numbers • use inverse knowledge to solve missing number sentences, introducing letter notation for missing values • solve problems involving a mixture addition and subtraction • apply known and related facts to mentally or informally add or subtract numbers	• multiply and divide any number by 10, 100 and 1 000 • multiply a number with up to 2 decimal places by whole numbers • use a formal written method to multiply a 4-digit number by a 2-digit number • use short division method and justify how answer is recorded • use long division as a strategy to divide • use formal long multiplication and division to solve word problems • use brackets to make a calculation clearer; to know and use BIDMAS	• work out and use the operation performed on a number to get a second number • write and use expressions involving an unknown • calculate the value for an algebraic expression by substituting a given value for an unknown • write and use formulae for simple patterns and problems • form equations to represent finding solutions to simple problems • solve simple one-step equations • write and solve two-step equations • find pairs of values to satisfy two unknowns in an expression • find pairs of unknown values to solve a problem	• identify and simplify fractions by finding equivalents • place fractions on number lines • compare, add or subtract fractions and mixed numbers • multiply and divide fractions by a fraction or whole number • solve problems, involving fractions, with more than one calculation • solve problems involving finding fractions of an amount or the whole from a fraction of it is given • find equivalent fractions, decimals and percentages • efficiently find a percentage of an amount by building from easily calculated percentage parts • find the missing amount from a known percentage of the amount or quantity

Unit 6:	**Unit 7**	**Unit 8:**	**Unit 9:**
Proportion/ratio – 4 lessons	Measure: length/weight/capacity – 4 lessons	Shape, space and position – 6 lessons	Measure – perimeter/area/volume – 5 lessons
• solve problems using ratio, with multiples or common factors of a quantity • recognise and use the similarities and differences between ratios and fractions • understand scale and proportion, using diagrams and double number lines • enlarge shapes using given scale factors and work systematically to test shapes for similarity	• use ratio to convert between units of metric measure and between metric and Imperial • solve problems involving length • solve problems involving weight • solve problems involving capacity	• understand the words 'radius', 'diameter' and 'circumference' • classify 2D and 3D shapes according to their properties • visualise and draw the nets of 3-D shapes • use a protractor to measure and draw angles • calculate missing angles using known facts (including polygons) • To use knowledge of coordinates in four quadrants to solve problems • To describe and make given translations • To reflect shapes in the axes of a coordinate grid	• understand that different shapes can have the same area • calculate the area and perimeter of rectangles and rectilinear shapes • calculate the area of a triangle by counting squares • calculate the area of a triangle by recognising that it is half of a rectangle • calculate the area of a triangle using a formula • calculate the area of a parallelogram by relating it to a rectangle • To find the volume of a shape by efficiently counting cubes • To calculate the volume of a cuboid using a formula