Anton Junior School medium Term Planning

YEAR 6		
Weeks	**Domain**	**Y6 NC Objectives**
	AUTUMN TERM	
Week 1 & 2	Place Value	• Read, write, order, and compare numbers to at least 10,000,000 and determine the value of each digit. • Identify, represent, and estimate numbers using different representations including number-lines • Round any whole number to a required degree of accuracy (represent on a number line)
Week 3	Addition and Subtraction	• Y5: Add and subtract whole numbers with more than 4 digits. Represent solutions appropriately using informal and formal written methods. • Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy • Solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why. • Perform mental calculations, including with mixed operations and large numbers
Week 4, 5, 6	Multiplication and division	• Multiply multi-digit numbers up to 4-digits by a 2-digit whole number using a formal written method of long multiplication (see NC appendix for methods). • Divide numbers up to 4-digits by a 2-digit whole number using a formal written method of long division (see NC appendix for methods), and interpret remainders as a whole number, fraction or by rounding as appropriate for the context. • Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. • Understand division as grouping, moving on from sharing, to make efficient use of multiplication facts when dividing. • Represent division calculations (not the solution) as number-lines and bar-models to support conceptual understanding before solving. • Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy • Use knowledge of the order of operations to carry out calculations involving the four operations • Solve multi-step problems in context, deciding which operation to use and why

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Week 7 & 8	FDP	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • Compare and order fractions, including fractions larger than one. • Use place value knowledge to find 10% and 1% of any number. • Know that 50% is the same as finding one half, 25% is the same as finding one quarter and 75% is the same as finding three quarters of a quantity (or shape) • Solve problems involving the calculation of percentages, e.g. 15% of 360 and the use of percentages for comparison.
Week 9 & 10	Geometry	• Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Draw 2-D shapes using given dimensions and angles • Recognise, describe, and build simple 3-D shapes, including making nets.
		• Know angles are measured in degrees: estimate and compare acute, obtuse, and reflex angles • Recognise angles where they meet at a point, on a straight line or are vertically opposite and find missing angles. • Describe positions on the full coordinate grid (all four quadrants) (link to negative numbers on a number-line). • Draw and translate simple shapes in the coordinate plane and reflect them in the axes
Week 11	Measurement	• Solve problems involving the calculation and conversion units of measure (g/kg ; ml/l) using decimal notation up to three decimal places. Link to place value understanding of scaling up and down by 1000 • Use, read, write, and convert between standard units, converting measurements of mass and

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		capacity from a smaller unit of measure to a larger unit and vice versa. • Estimate capacity using standard units to measure liquid (l/ml) and read scales graded in different sized steps (e.g. 0, 10, 20, 30…. 0, 25 , 50 , 75….0, 20, 40,60…) • Y5: Understand and use equivalences between metric units and common imperial units such as pounds and pints. • Convert between miles and kilometers • Solve problems involving durations of time and fractions of time e.g. 2/3 of a day in hours • Solve problems involving converting between units of time. • Complete, read and interpret information in tables, including time tables
Week 12	Algebra	• Use simple formulae • Generate and describe linear number sequences • Express missing number problems algebraically • Find pairs of numbers that satisfy an equation with two unknowns • Enumerate possibilities of combinations of two variables
SPRING TERM		
Week 1 & 2	FDP	• Know that 1/10 = 0.1 and 1/100 = 0.01 • Associate a fraction with division (3/8 = 3÷8) and calculate decimal fraction equivalents e.g. 0.375) for a simple fraction (e.g. 3/8) • Identify the value of each digit to three decimal places and multiply and divide numbers by 10,100,1000 where the answers are up to three decimal places. • Recall and use equivalences between simple fractions, decimals, and percentages, including in different contexts.
Week 3	Ratio and Proportion	• Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. • Solve problems involving ratio and proportion • Solve problems involving unequal sharing and grouping using knowledge of factors and multiples. They might use the notation a:b to record their work • Solve problems involving similar shapes where the scale factor is known or can be found

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Week 4	Statistics	• Interpret and construct pie charts and use these to solve problems, including comparison problems. • Calculate and interpret the mean as an average (from a set of data)
Week 5	Place Value (Negative Numbers)	• Use negative numbers in context and calculate intervals across zero • Interpret and construct line graphs and use these to solve problems. • Calculate and interpret the mean as an average
Week 6 & 7	Multiplication and division	• Perform mental calculations with mixed operations and large numbers • Know and use the vocabulary of prime numbers, prime factors, and composite (non-prime) numbers. Construct arrays to show that prime numbers (p) have exactly one array (1 x p) • Recognise and use square numbers and cube numbers and the notation for (2) and (3). Construct arrays for square numbers to show that square numbers have an odd number of factors since one is repeated (e.g. 16 can be constructed as 1 x 16; 2 x 8 and 4 x 4 ~ factors are 1,2,4,8,16) • Identify common factors, common multiples and prime numbers • Use knowledge of the order of operations to carry out calculations involving the four operations • Solve multi-step problems in context, deciding which operation to use and why
Week 8 & 9	FDP	• Use common factors to simplify fractions • Use common multiples to express fraction in the same denomination • Compare and order fractions >1 • Add and subtract fractions with different denominators, using the concept of equivalence • Multiply simple pairs of proper fractions, writing the answer in its simplest form • Divide proper fractions by whole numbers • Associate a fraction with division and calculate decimal fractions by division (e.g. 1÷ 2 = 0.5) • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Multiply one digit numbers with up to two decimal places by whole numbers

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		• Use written division methods in cases where the answer has up to two decimal places • Solve problems which require answers to be rounded to specified degrees of accuracy
Week 10	Measurement	• Measure and calculate the perimeter of composite rectilinear shapes in cm and m. • Recognise the same areas can have different perimeters and vice versa • Recognise when it is possible to use formulae for area and volume of shapes • Calulate the area of paralellograms and triangles • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres, and cubic metres, and extending to other units (eg mm/km)
Week 11		Consolidation Please map out the objectives in the medium term plan prior to teaching.
Week 12		
Week 1		
Week 2		
Week 3		
Week 4	Year 6 SATS	
Project Work		
End of Year		