

Marton Manor
Maths Medium-Term Plan & Small Steps: Year 5
Autumn Term



	Place Value	Addition & Subtraction	Statistics	Multiplication & Division	Perimeter & Area
	4 weeks	4 weeks	2 weeks	3 weeks	2 weeks
National Curriculum	<ul style="list-style-type: none"> Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 Solve number problems and practical problems involving the above Interpret negative numbers in context, count forwards and backwards with + or - whole numbers, including through zero, in steps of powers of 10 for any given number up to 1000 000. 	<ul style="list-style-type: none"> Add and subtract numbers mentally with increasingly large numbers Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction) Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy 	<ul style="list-style-type: none"> Solve comparison, sum and difference problems using information presented in a line graph Complete, read and interpret information in tables, including timetables 	<ul style="list-style-type: none"> Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 1 Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 Multiply and divide numbers mentally, drawing upon known facts 	<ul style="list-style-type: none"> Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes
Small Steps	Step 1 Roman numerals to 1,000 Assessment 15: Pause & Stretch Step 2 Numbers to 10,000 Step 3 Numbers to 100,000 Step 4 Numbers to 1,000,000 Step 5 Read and write numbers to 1,000,000 Step 6 Powers of 10 Step 7 10/100/1,000/10,000/100,000 more or less Step 8 Partition numbers to 1,000,000 Step 9 Number line to 1,000,000 Step 10 Compare and order numbers to 100,000 Step 11 Compare and order numbers to 1,000,000 PS Lesson Assessment 1: Pause & Stretch Step 12 Round to the nearest 10, 100 or 1,000 Step 13 Round within 100,000 PS Lesson Assessment 6: Pause & Stretch Step 14 negative numbers PS Lesson Assessment 11: Pause & Stretch	Step 1 Mental strategies Step 2 Add whole numbers with more than four digits Step 3 Subtract whole numbers with more than four digits PS Lesson Assessment 2: Pause & Stretch Step 4 Round to check answers Step 5 Inverse operations (addition and subtraction) Step 6 Multi-step addition and subtraction problems Step 7 Compare calculations Step 8 Find missing numbers	Step 1 Draw line graphs Step 2 Read and interpret line graphs Step 3 Read and interpret tables Step 4 Two-way tables Step 5 Read and interpret timetables PS Lesson Assessment 25: Pause & Stretch	Step 1 Multiples Step 2 Common multiples Step 3 Factors Step 4 Common factors Step 5 Prime numbers Step 6 Square numbers Step 7 Cube numbers Step 8 Multiply by 10, 100 and 1,000 Step 9 Divide by 10, 100 and 1,000 Step 10 Multiples of 10, 100 and 1,000 PS Lesson Assessment 14: Pause & Stretch	Step 1 Perimeter of rectangles Step 2 Perimeter of rectilinear shapes Step 3 Perimeter of polygons Step 4 Area of rectangles Step 5 Area of compound shapes Step 6 Estimate area PS Lesson Assessment 17: Pause & Stretch
Enrichment	Block Opener/Assembly on Careers linked to unit	Block Opener/Assembly on Careers linked to unit	Block Opener/Assembly on Careers linked to unit Lingfield Education Trust TTRS Competition (16-20.10.23)	Block Opener/Assembly on Careers linked to unit World Statistics Day (20.10.23)	Block Opener/Assembly on Careers linked to unit WR Barvember (November) Block Opener/Assembly on Careers linked to unit Lingfield Education Trust TTRS Competition (11-15.12.23)

Lingfield Education Trust
Maths Medium-Term Plan Small Steps: Year 5
 Spring Term



	Multiplication & Division 4 weeks	Fractions 4 weeks	Properties of Shape 2 weeks	Position & Direction 2 weeks
National Curriculum	<ul style="list-style-type: none"> Multiply numbers up to four digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers Divide up to four digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes 	<ul style="list-style-type: none"> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination Compare and order fractions, including fractions > 1 Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Identify common factors, common multiples and prime numbers Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving addition, subtraction, multiplication and division Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number (Y4) 	<ul style="list-style-type: none"> Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Draw given angles, and measure them in degrees ($^{\circ}$) Identify angles at a point and 1 whole turn (total 360°) Identify: angles at a point and 1 whole turn (total 360°); angles at a point on a straight line and half a turn (total 180°) Use the properties of rectangles to deduce related facts and find missing lengths and angles Distinguish between regular and irregular polygons based on reasoning about equal sides and angles Identify 3-D shapes, including cubes and other cuboids, from 2-D representations 	<ul style="list-style-type: none"> Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed
Small Steps	Step 1 Multiply up to a 4-digit number by a 1-digit number Step 2 Multiply a 2-digit number by a 2-digit number (area model) Step 3 Multiply a 2-digit number by a 2-digit number Step 4 Multiply a 3-digit number by a 2-digit number Step 5 Multiply a 4-digit number by a 2-digit number Step 6 Solve problems with multiplication Step 7 Short division Step 8 Divide a 4-digit number by a 1-digit number Step 9 Divide with remainders Step 10 Efficient division Step 11 Solve problems with multiplication and division PS Lesson Assessment 3: Pause & Stretch	Step 1 Equivalent fractions and simplifying Step 2 Equivalent fractions on a number line PS Lesson Assessment 10: Pause & Stretch Step 3 Compare and order (denominator) Step 4 Compare and order (numerator) Step 5 Add and subtract simple fractions Step 6 Add and subtract any two fractions Step 7 Add mixed numbers Step 8 Subtract mixed number Step 9 Multi-step problems PS Lesson Assessment 4: Pause & Stretch Step 1 Multiply a unit fraction by an integer Step 2 Multiply a non-unit fraction by an integer Step 3 Multiply a mixed number by an integer Step 4 Calculate a fraction of a quantity Step 5 Fraction of an amount Step 6 Find the whole Step 7 Use fractions as operators PS Lesson Assessment 12: Pause & Stretch	Step 1 Understand and use degrees Step 2 Classify angles Step 3 Estimate angles Step 4 Measure angles up to 180° Step 5 Draw lines and angles accurately Assessment 22: Pause & Stretch Step 6 Calculate angles around a point Step 7 Calculate angles on a straight line PS Lesson Assessment 23: Pause & Stretch Step 8 Lengths and angles in shapes Step 9 Regular and irregular polygons PS Lesson Assessment 21: Pause & Stretch Step 10 3-D shapes PS Lesson Assessment 20: Pause & Stretch	Step 1 Read and plot coordinates Step 2 Problem solving with coordinates Step 3 Translation Step 4 Translation with coordinates Step 5 Lines of symmetry Step 6 Reflection in horizontal and vertical line PS Lesson Assessment 24: Pause & Stretch
Enrichment	Block Opener/Assembly on Careers linked to unit International Puzzle Day (29.01.24)	Block Opener/Assembly on Careers linked to unit Lingfield Education Trust TTRS Competition (05-09.02.24) NSPCC Number Day (02.02.24)	Block Opener/Assembly on Careers linked to unit World Maths Day (23.03.24)	Block Opener/Assembly on Careers linked to unit Lingfield Education Trust TTRS Competition (11-15.03.24) LET Easter Problems & Puzzles

Marton Manor
Maths Medium-Term Plan Small Steps: Year 5
 Summer Term



	Decimals & Percent	Decimals	Converting Units	Volume & Capacity	NPVC Bridge
	3 weeks	2 weeks	2 weeks	2 weeks	2 weeks
National Curriculum	<ul style="list-style-type: none"> Read, write, order and compare numbers with up to 3 decimal places Read and write decimal numbers as fractions Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Solve problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those fractions with a denominator of a multiple of 10 or 25 Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Solve problems involving numbers up to 3 decimal places Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per 100", and write percentages as a fraction with denominator 100, and as a decimal fraction 	<ul style="list-style-type: none"> Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Solve problems involving number up to 3 decimal places Read, write, order and compare numbers with up to 3 decimal places Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 	<ul style="list-style-type: none"> Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Draw given angles, and measure them in degrees ($^{\circ}$) Identify angles at a point and 1 whole turn (total 360°) Identify: angles at a point and 1 whole turn (total 360°); angles at a point on a straight line and half a turn (total 180°) Use the properties of rectangles to deduce related facts and find missing lengths and angles Distinguish between regular and irregular polygons based on reasoning about equal sides and angles Identify 3-D shapes, including cubes and other cuboids, from 2-D representations 	<ul style="list-style-type: none"> Estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity Estimate volume and capacity [for example, using water] 	<ul style="list-style-type: none"> Use this time to revisit place value and all four operations ready for next year group
Small Steps	Step 1 Decimals up to 2 decimal places Step 2 Equivalent fractions and decimals (tenths) Step 3 Equivalent fractions and decimals (hundredths) Step 4 Equivalent fractions and decimals Step 5 Thousandths as fractions Step 6 Thousandths as decimals Step 7 Thousandths on a place value chart Step 8 Order and compare decimals (same number of decimal places) Step 9 Order and compare any decimals with up to 3 decimal places PS Lesson Assessment 13: Pause & Stretch Step 10 Round to the nearest whole number Step 11 Round to 1 decimal place PS Lesson Assessment 7: Pause & Stretch Step 12 Understand percentages Step 13 Percentages as fractions Step 14 Percentages as decimals Step 15 Equivalent fractions, decimals and percentages PS Lesson Assessment 5: Pause & Stretch	Step 1 Use known facts to add and subtract decimals within 1 Step 2 Complements to 1 Step 3 Add and subtract decimals across 1 Step 4 Add decimals with the same number of decimal places Step 5 Subtract decimals with the same number of decimal places Step 6 Add decimals with different numbers of decimal places Step 7 Subtract decimals with different numbers of decimal places PS Lesson Assessment 8: Pause & Stretch Step 8 Efficient strategies for adding and subtracting decimals Step 9 Decimal sequences Step 10 Multiply by 10, 100 and 1,000. Step 11 Divide by 10, 100 and 1,000 Step 12 Multiply and divide decimals – missing values	Step 1 Kilograms and kilometres Step 2 Millimetres and millilitres Step 3 Convert units of length Step 4 Convert between metric and imperial units Step 5 Convert units of time Step 6 Calculate with timetables PS Lesson Assessment 16: Pause & Stretch	Step 1 Cubic centimetres Step 2 Compare volume Step 3 Estimate volume Step 4 Estimate capacity PS Lesson Assessment 18: Pause & Stretch	
Enrichment	Block Opener/Assembly on Careers linked to unit Lingfield Education Trust TTRS Competition (20-24.05.24) National Numeracy Day (15.05.24) Women in Maths Day (12.05.24)	Block Opener/Assembly on Careers linked to unit My Money Week (12-16.06.24) Alan Turing Day (23.06.24) Allow you pupils practice on the maths orienteering course this term ready for the competition next term.	Block Opener/Assembly on Careers linked to unit My Money Week (12-16.06.24) Alan Turing Day (23.06.24) Allow you pupils practice on the maths orienteering course this term ready for the competition next term.	Block Opener/Assembly on Careers linked to unit Lingfield Education Trust TTRS Competition (01-05.07.24) MP Maths Orienteering Competition for all year groups (01-05.07.24)	LET Summer Problems & Puzzles