



Yr 5 Maths Medium Term Plan

<u>Weeks</u>	<u>Sequence and Theme</u>	<u>National Curriculum Links</u>	<u>Learning Intentions (Small Steps)</u>	<u>Key Vocabulary</u>
1-4	Number Place Value	<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 Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 	<ol style="list-style-type: none"> To recognise Roman Numerals to 1,000 To recognise numbers to 10,000 To recognise numbers to 100,000 To recognise numbers to 1,000,000 To read and write numbers to 1,000,000 To understand powers of 10 To find 10/100/1,000/10,000/100,000 more or less of any given number To partition numbers to 1,000,000 To use a number line to 1,000,000 To compare and order numbers to 100,000 To compare and order numbers to 1,000,000 To round to the nearest 10, 100 or 1,000 To round within 100,000 To round within 1,000,000 	<i>Powers of 10</i> <i>Tenths, hundredths</i> <i>Decimal (places)</i> <i>Round (to nearest)</i> <i>Thousand more/less than</i> <i>Negative integers</i> <i>Count through zero</i> <i>Roman numerals (I to C)</i> <i>Numbers to one thousand</i> <i>Numbers to one hundred</i> <i>Hundreds</i> <i>Partition, recombine</i> <i>Hundred more/less</i> <i>None</i> <i>Count (on/up/to/from/down)</i> <i>Before, after</i> <i>More, less, many,</i> <i>Few, fewer, least, fewest, smallest, greater, lesser</i> <i>Equal to, the same as</i> <i>Odd, even</i> <i>Pair</i> <i>Units, ones, tens</i> <i>Ten more/less</i> <i>Digit, Numeral, Figure(s)</i> <i>Compare</i> <i>Size</i> <i>Value</i> <i>Between, Halfway between, Above, below</i>
5-6	Number Addition and Subtraction	<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 	<ol style="list-style-type: none"> To use strategies to mentally calculate sums To add whole numbers with more than four digits To subtract whole numbers with more than four digits To round to check answers To use inverse operations To answer multi-step addition and subtraction problems To compare calculations To find missing numbers in calculations 	<i>Efficient written method</i> <i>Column addition and subtraction</i> <i>Number bonds, number line</i> <i>Add, more, plus, make, sum, total, altogether</i> <i>Inverse</i> <i>Double</i> <i>Half, halve</i> <i>Equals, is the same as (including equals sign)</i> <i>Difference between</i> <i>How many more to make...?</i> <i>How many more is...than...?</i> <i>How much more is...?</i> <i>Subtract, take away, minus</i> <i>How many fewer is...than...?</i> <i>How much less is...?</i> <i>How many left?</i>



7-9	<p>Number Multiplication and Division</p>	<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 19 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 	<ol style="list-style-type: none"> To find multiples of given numbers To find common multiples of any pair of numbers To find factors of given numbers To recognise common factors To recognise Prime numbers To recognise Square numbers To recognise Cube numbers To multiply by 10, 100 and 1,000 To divide by 10, 100 and 1,000 To multiply and divide by multiples of 10, 100 and 1,000 	<p>Factor pairs Composite numbers, prime number, prime factors, square number, cubed number Formal written method Multiplication facts (up to 12x12) Division facts Inverse Derive Product Multiples of four, eight, fifty and one hundred Scale up Odd, even Count in twos, threes, fives Count in tens (forwards from/backwards from) How many times? Lots of, groups of Once, twice, three times, five times Multiple of, times, multiply, multiply by Repeated addition Array, row, column Double, halve Share, share equally Group in pairs, threes, etc. Equal groups of, Divide, divided by, left, left over</p>
10-13	<p>Number Fractions A</p>	<ul style="list-style-type: none"> Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number Compare and order fractions whose denominators are all multiples of the same number Add and subtract fractions with the same denominator, and denominators that are multiples of the same number 	<ol style="list-style-type: none"> To find fractions equivalent to a unit fraction To find fractions equivalent to a non-unit fraction To recognise equivalent fractions To convert improper fractions to mixed numbers To convert mixed numbers to improper fractions To compare fractions less than 1 To order fractions less than 1 To compare and order fractions greater than 1 To add and subtract fractions with the same denominator To add fractions within 1 To add fractions with total greater than 1 To add to a mixed number To add two mixed numbers To subtract fractions To subtract from a mixed number To subtract from a mixed number – breaking the whole To subtract two mixed numbers 	<p>Proper fractions, improper fractions, mixed numbers Percentage Half, quarter, fifth, two fifths, four fifths Ratio, proportion Equivalent decimals and fractions Numerator, denominator Unit fraction, non-unit fraction Compare and order Tenths Three quarters, one third, a third Equivalence, equivalent Whole Equal parts, four equal parts One half, two halves A quarter, two quarters</p>
14-15	<p>Consolidate Autumn 1 learning through recap, revision and real life experiences. * Teacher's discretion to start Spring Topic 1 in Week 14-15</p>			



Yr 5 Maths

Spring Medium Term Plan

<u>Weeks</u>	<u>Sequence and Theme</u>	<u>National Curriculum Links</u>	<u>Learning Intentions (Small Steps)</u>	<u>Key Vocabulary</u>
1-3	Number Multiplication & Division B	<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 	<ol style="list-style-type: none"> To multiply up to a 4-digit number by a 1-digit number To multiply a 2-digit number by a 2-digit number (area model) To multiply a 2-digit number by a 2-digit number using the formal written method To multiply a 3-digit number by a 2-digit number using the formal written method To multiply a 4-digit number by a 2-digit number using the formal written method To solve problems with multiplication To use the formal written method for short division To divide a 4-digit number by a 1-digit number To divide with remainders To choose the most efficient division method to use in a range of contexts To solve problems with multiplication and division 	<p>Factor pairs Composite numbers, prime number, prime factors, square number, cubed number Formal written method Multiplication facts (up to 12x12) Division facts Inverse Derive Product Multiples of four, eight, fifty and one hundred Scale up Odd, even Count in twos, threes, fives Count in tens (forwards from/backwards from) How many times? Lots of, groups of Once, twice, three times, five times Multiple of, times, multiply, multiply by Repeated addition Array, row, column Double, halve Share, share equally Group in pairs, threes, etc. Equal groups of, Divide, divided by, left, left over</p>
4-5	Number Fractions B	<ul style="list-style-type: none"> 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) 	<ol style="list-style-type: none"> To multiply a unit fraction by an integer To multiply a non-unit fraction by an integer To multiply a mixed number by an integer To calculate a fraction of a quantity To find a fraction of an amount To use a fraction of an amount to find the whole To use fractions as operators 	<p>Proper fractions, improper fractions, mixed numbers Percentage Half, quarter, fifth, two fifths, four fifths Ratio, proportion Equivalent decimals and fractions Numerator, denominator Unit fraction, non-unit fraction Compare and order Tenths Three quarters, one third, a third Equivalence, equivalent Whole Equal parts, four equal parts One half, two halves A quarter, two quarters</p>
6-9	Number Decimal & Percentages	<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, 	<ol style="list-style-type: none"> To identify decimals up to 2 decimal places To find equivalent fractions and decimals (tenths) To find equivalent fractions and decimals (hundredths) 	<p>Proper fractions, improper fractions, mixed numbers Percentage Half, quarter, fifth, two fifths, four fifths Ratio, proportion Equivalent decimals and fractions Numerator, denominator</p>



		<p>represented visually, including tenths and hundredths</p> <ul style="list-style-type: none"> Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ 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 a fraction with denominator 100, and as a decimal fraction 	<ol style="list-style-type: none"> To find equivalent fractions and decimals To find thousandths as fractions To write thousandths as decimals To identify thousandths on a place value chart To order and compare decimals (same number of decimal places) To order and compare any decimals with up to 3 decimal places To round decimal numbers to the nearest whole number To round decimal numbers to the nearest decimal place To understand percentages To explore percentages by comparing them to fractions To find decimal equivalents to percentages To find equivalent fractions, decimals and percentages 	<p>Unit fraction, non-unit fraction Compare and order Tenths Three quarters, one third, a third Equivalence, equivalent Whole Equal parts, four equal parts One half, two halves A quarter, two quarters</p>
10	<p><u>Measurement</u> Perimeter & Area</p>	<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 	<ol style="list-style-type: none"> To find the perimeter of rectangles To find the perimeter of rectilinear shapes To find the perimeter of polygons To find the area of rectangles To calculate the area of compound shapes To estimate area 	<p>Volume Imperial units, metric units Convert Leap year Twelve hour/twenty-four-hour clock Roman numerals I to XIII Quarter past/to m/km, g/kg, ml/l Temperature (degrees) Full, half full, empty Holds, Container Weigh, weighs, balances Heavy, heavier, heaviest, light, lighter, lightest Scales Time, Days of the week: Monday, Tuesday, etc. Seasons: spring, summer, autumn, winter Day, week, month, year, weekend Birthday, holiday Morning, afternoon, evening, night, midnight Bedtime, dinnertime, playtime Today, yesterday, tomorrow Before, after Next, last Now, soon, early, late Quick, quicker, quickest, quickly, fast, faster, fastest, slow, slower, slowest, slowly Old, older, oldest, new, newer, newest Takes longer, takes less time Hour, o'clock, half past Clock, watch, hands How long ago? how long will it be to...? how long will it take to...? how often? Always, never, often, sometimes, usually Once, twice</p>



				<p>First, second, third, etc. Estimate, close to, about the same as, just over, just under, Too many, too few, not enough, enough Length, width, height, depth Long, longer, longest, short, shorter shortest, tall, taller, tallest, high, higher, highest Low, wide, narrow, deep, shallow, thick, thin, Far, near, close Metre, ruler, metre stick Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as How much? how many? Total</p>
11	<u>Statistics</u>	<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 timetable 	<ol style="list-style-type: none"> To interpret and draw line graphs To read and interpret line graphs To read and interpret data presented in a table To understand two-way tables To read and interpret timetables 	<p>Mean Pie chart Construct Continuous data Line graph Chart, bar chart, frequency table, Carroll diagram, Venn diagram Axis, axes Diagram Count, tally, sort Vote Graph, block graph, pictogram, Represent Group, set, list, table Label, title Most popular, most common, least popular, least common</p>
12-13	<p>Consolidate Spring learning through recap, revision and real life experiences. * Teacher's discretion to start Summer Topic</p>			



Yr 5 Maths Summer Medium Term Plan

<u>Weeks</u>	<u>Sequence and Theme</u>	<u>National Curriculum Links</u>	<u>Learning Intentions (Small Steps)</u>	<u>Key Vocabulary</u>
1-3	<u>Geometry</u> Shape	<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 	<ol style="list-style-type: none"> To understand and use degrees To classify angles To estimate angles To measure angles up to 180° To draw lines and angles accurately To calculate angles around a point To calculate angles on a straight line To calculate lengths and angles in shapes To identify regular and irregular polygons To identify 3-D shapes and their properties 	Size Bigger, larger, smaller Symmetrical, line of symmetry Fold Match Mirror line, reflection Pattern, repeating pattern Group, sort Cube, cuboids, pyramid, sphere, cone, cylinder, circle, triangle, square Shape Flat, curved, straight, round Hollow, solid Corner (point, pointed), Vertices Face, side, edge Make, build, draw Horizontal, vertical, perpendicular and parallel lines Quadrilaterals Triangles Right angle, acute and obtuse angles Regular and irregular Polygons
4	<u>Geometry</u> Position & Direction	<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 	<ol style="list-style-type: none"> To read and plot coordinates To problem solve with coordinates To translate shapes on different grids To understand translation and coordinates To identify lines of symmetry in 2-D shapes To identify and compare reflections in horizontal and vertical lines 	Position Over, under, underneath, above, below, top, bottom, side On, in, outside, inside Around, in front, behind Front, back Before, after Beside, next to, opposite Apart Between, middle, edge, centre Corner Direction Left, right, up, down, forwards, backwards, sideways Across Close, far, near Along, through To, from, towards, away from Movement Slide, roll, turn, whole turn, half turn Stretch, bend Rotation Clockwise, anticlockwise Straight line Ninety degree turn, right angle Greater/less than ninety degrees



				<p>Orientation (same orientation, different orientation) Coordinates Translation Quadrant x-axis, y-axis Perimeter and area Reflex angle Dimensions</p>
5-7	<p>Number Decimals</p>	<ul style="list-style-type: none"> Recognise and use thousandths and relate them to tenths, hundredths 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 	<ol style="list-style-type: none"> To use known facts to add and subtract decimals within 1 To find complements to 1 To add and subtract decimals across 1 To add decimals with the same number of places To subtract decimals with the same number of places To add decimals with different numbers of places To subtract decimals with different numbers of places To use efficient strategies for adding and subtracting decimals To identify decimal sequences To multiply decimals by 10, 100 and 1,000 To divide decimals by 10, 100 and 1,000 To multiply and divide decimals to work out missing values 	<p>Proper fractions, improper fractions, mixed numbers Percentage Half, quarter, fifth, two fifths, four fifths Ratio, proportion Equivalent decimals and fractions Numerator, denominator Unit fraction, non-unit fraction Compare and order Tenths Three quarters, one third, a third Equivalence, equivalent Whole Equal parts, four equal parts One half, two halves A quarter, two quarters</p>
8	<p>Number Negative Numbers</p>	<ul style="list-style-type: none"> Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero 	<ol style="list-style-type: none"> To understand negative numbers To count through zero in 1s To count through zero in multiples To compare and order negative numbers To find the difference between positive and negative numbers? 	<p>Powers of 10 Tenths, hundredths Decimal (places) Round (to nearest) Thousand more/less than Negative integers Count through zero Roman numerals (I to C) Numbers to one thousand Numbers to one hundred Hundreds Partition, recombine Hundred more/less None Count (on/up/to/from/down) Before, after More, less, many, Few, fewer, least, fewest, smallest, greater, lesser Equal to, the same as Odd, even Pair Units, ones, tens Ten more/less Digit, Numeral, Figure(s) Compare Size</p>



				Value <i>Between, Halfway between, Above, below</i>
9-10	<u>Measurement</u> Converting Units	<ul style="list-style-type: none"> Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre] Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints Solve problems involving converting between units of time 	<ol style="list-style-type: none"> To understand kilograms and kilometres To understand millimetres and millilitres To convert units of length To convert between metric and imperial units To convert units of time To calculate using timetables 	Volume <i>Imperial units, metric units</i> Convert Leap year Twelve hour/twenty-four-hour clock Roman numerals I to XIII Quarter past/to m/km, g/kg, ml/l Temperature (degrees) Full, half full, empty Holds, Container Weigh, weighs, balances Heavy, heavier, heaviest, light, lighter, lightest Scales Time, Days of the week: Monday, Tuesday, etc. Seasons: spring, summer, autumn, winter Day, week, month, year, weekend Birthday, holiday Morning, afternoon, evening, night, midnight Bedtime, dinnertime, playtime Today, yesterday, tomorrow Before, after Next, last Now, soon, early, late Quick, quicker, quickest, quickly, fast, faster, fastest, slow, slower, slowest, slowly Old, older, oldest, new, newer, newest Takes longer, takes less time Hour, o'clock, half past Clock, watch, hands How long ago? how long will it be to...? how long will it take to...? how often? Always, never, often, sometimes, usually Once, twice First, second, third, etc. Estimate, close to, about the same as, just over, just under, Too many, too few, not enough, enough Length, width, height, depth Long, longer, longest, short, shorter shortest, tall, taller, tallest, high, higher, highest Low, wide, narrow, deep, shallow, thick, thin, Far, near, close Metre, ruler, metre stick Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as How much? how many? Total
11	<u>Measurement</u> Volume	<ul style="list-style-type: none"> Estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity 	<ol style="list-style-type: none"> To use cubic centimetres to measure volume To compare volumes To estimate volumes 	Volume <i>Imperial units, metric units</i> Convert Leap year



		<ul style="list-style-type: none"> • Estimate volume and capacity [for example, using water] 	<p>4. To estimate capacity of different objects</p>	<p>Twelve hour/twenty-four-hour clock Roman numerals I to XIII Quarter past/to m/km, g/kg, ml/l Temperature (degrees) Full, half full, empty Holds, Container Weigh, weighs, balances Heavy, heavier, heaviest, light, lighter, lightest Scales Time, Days of the week: Monday, Tuesday, etc. Seasons: spring, summer, autumn, winter Day, week, month, year, weekend Birthday, holiday Morning, afternoon, evening, night, midnight Bedtime, dinnertime, playtime Today, yesterday, tomorrow Before, after Next, last Now, soon, early, late Quick, quicker, quickest, quickly, fast, faster, fastest, slow, slower, slowest, slowly Old, older, oldest, new, newer, newest Takes longer, takes less time Hour, o'clock, half past Clock, watch, hands How long ago? how long will it be to...? how long will it take to...? how often? Always, never, often, sometimes, usually Once, twice First, second, third, etc. Estimate, close to, about the same as, just over, just under, Too many, too few, not enough, enough Length, width, height, depth Long, longer, longest, short, shorter shortest, tall, taller, tallest, high, higher, highest Low, wide, narrow, deep, shallow, thick, thin, Far, near, close Metre, ruler, metre stick Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as How much? how many? Total</p>
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