

## MPPS Y4 Maths Progression Statements

Working towards the expected standard in Y4	Working at the expected standard in Y4	Working at greater depth in Y4
<b>Number and Place Value</b>		
Recognise the place value of each digit in any 3-digit and some 4-digit number, using the terms thousand, hundred, tens and ones	Recognise the place value of each digit in any 4-digit number, using the terms thousand, hundred, tens and ones	Recognise place value of 4-digit numbers within a problem-solving context (e.g. Find all possible numbers using the numbers 4, 1, 7 and 6).
Count in multiples of 10s, 100s and 1000s, forwards and backwards, starting from 0.	Count in multiples of 10s, 100s and 1000s, forwards and backwards, to include negative numbers.	Count in multiples of 10s, 100s and 1000s, forwards and backwards, to include negative numbers. Able to reduce numbers using the appropriate multiples
Order numbers beyond 1000	Order and compare numbers beyond 1000	Order and compare numbers beyond 1000, within a context of quantity or measurement
Count in multiples of 6 using knowledge of 3s. Can finish sequences of 7, 9 and 25	Find a 1000 more or less than any number	Find a 1000 more or less than any number, including across 0
Find a 1000 more or less than any number between 1 and 3 digits	Count in multiples of 6, 7, 9, 25 and 1000	Count in multiples of 6, 7, 9, 25 and 1000, including comparing sequences, to find a common factor
Identify, represent, and estimate numbers up to 1000, in a variety of different ways, using objects and pictures. Beginning to continue up to 10 000 with support	Identify, represent, and estimate numbers to 10 000, in a variety of different ways (e.g. choosing if a crowd is 60, 600 or 6000)	Identify, represent, and estimate numbers to 10 000, in a variety of different ways within a problem-solving context (e.g. write in order the number of people at a HFC football match, secondary school and living in Huddersfield)
Round any number to the nearest 10 or 100.	Round any number to the nearest 10, 100 or 1000.	
	Solve number and practical problems that involve all of the above and with increasingly large positive numbers.	
	Read and write numbers up to 100 in Roman numerals. Explaining why the number system changed to the modern system, especially the significance of the zero in place value	
<b>Addition and Subtraction</b>		
Add and subtract, with 3-digit numbers using formal methods	Add and subtract, up to 4 digits by 4 digits, using formal methods	Add and subtract, up to 4 digits by 4 digits, including missing numbers, using formal methods
Understand how to find and use inverse operations to check calculations for the above statements	Understand how to find and use inverse operations to check calculations for the above statements	Understand how to find and use inverse operations to check calculations for the above statements
Solve one-step calculation problems, involving addition and subtraction, deciding which operation and method to use.	Solve two-step calculation problems, involving addition and subtraction, deciding which operation and method to use and why.	Solve complex two-step calculation problems, involving addition and subtraction, within a context such as money or measure, deciding which operation and method to use and why
<b>Multiplication and Division</b>		
Recall multiplication and division facts for all tables up to 10x10	Recall multiplication and division facts for all tables up to 12x12	Recall and apply within a context, multiplication and division facts for all tables up to 12x12

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Multiply and divide 2-digit numbers by a 1-digit number (beginning to use 3-digit numbers), using formal written methods to record, including simple remainders e.g. $r3$	Multiply and divide 2- and 3-digit numbers by a 1-digit number, using formal written methods, including simple remainders e.g. $r3$	Multiply and divide 2- and 3-digit numbers by a 1 and 2-digit number, using formal written methods, including simple remainders e.g. $r3$
Can complete a multi-step multiplication in the correct order, with prompting (e.g. $2 \times 5 \times 8 = 10 \times 8 = 80$ ). partitioning the calculation (e.g. $3 \times 4 \times 6$ becomes $3 \times 4 = 12$ , then $12 \times 6 = 72$ ).	Mentally multiply and divide, including multiplying and dividing by 1 and 0. Multiplying together three numbers.	Mentally multiply and divide, including multiplying and dividing by 1 and 0. Multiplying together three or more numbers
Mentally multiply and divide, including multiplying and dividing by 1 and 0.	Identify and use factor pairs within commutativity in mental calculations.	Identify, use and apply factor pairs within mental calculations
Identify factor pairs (e.g. 24 can be made from the factors: 6 and 4, 12 and 2, 8 and 3, etc.)	Solve multi-step multiplication problems using the above statements; to include the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	Solve multi-step multiplication problems using the above statements; to include missing number, scaling up and word-based problems. Explaining how and why they have completed it
<b>Fractions and Decimals</b>		
Count up and down, including within a sequence, in tenths and hundredths	Count up and down, including within a sequence, in tenths and hundredths	Count up and down, including within a sequence, in tenths and hundredths. Applying this to a context such as money/measure
Recognise, sort and show families of common equivalent fractions, where the starting fraction has a numerator of one (e.g. $1/4 = 2/8$ and $4/16$ )	Recognise, sort and show families of common equivalent fractions, where the starting fraction has a numerator of more than one (e.g. $3/4 = 6/8$ and $12/16$ )	Recognise, sort and show families of common equivalent fractions, where the starting fraction has a numerator of more than one. Explaining why some fractions would not fit into the family
Compare, order, add and subtract fractions with same 2-digit denominator, with supporting resources and diagrams	Compare, order, add and subtract fractions with same 2-digit denominator	Compare, order, add and subtract fractions (including improper) with the same 2-digit denominator explaining why they are in that order (e.g. $1/3$ is bigger than $1/5$ because it is split into less parts/smaller denominator).
Recognise, find and write fractions of amounts which have a numerator of 1 and a denominator with known multiplication facts	Recognise find and write fraction of amounts with a numerator of more than 1 and a denominator with known multiplication facts	Recognise find and write fraction of amounts with a numerator of more than 1 and a denominator with known multiplication facts. Including within a context such as money
Divide 1- and 2-digit numbers by 10 and 100, identifying the correct place value (with prompting), using the vocabulary tenths and hundredths	Divide 1- and 2-digit numbers by 10 and 100, identifying the correct place value, using the vocabulary tenths and hundredths.	Divide 1- and 2-digit numbers by 10 and 100, identifying the correct place value, using the vocabulary tenths and hundredths. Explaining how this could be applied to thousandths
Round decimals with one decimal place to the nearest whole number	Round decimals with one decimal place to the nearest whole number, explaining why they have rounded it to that number.	Round decimals with one decimal place to the nearest whole number, explaining why they have rounded it to that number and other numbers that could also round to that number
Compare and order numbers with up to 1 decimal place	Compare and order numbers with up to 2 decimal places.	Compare and order numbers with up to 2 decimal places, including zeros as one of the numbers (e.g. 3.02 and 3.12)
Recognise and write equivalents between decimals and fractions, with support (e.g. $0.3 = 3/10$ )	Recognise and write equivalents between decimals and fractions, up to 1 decimal place, beginning to apply to 2 dp. (e.g. $0.7 = 7/10$ ).	Recognise and write equivalents between decimals and fractions, up to 2 decimal places. Understanding how it scales up (e.g. If $1/8 = 0.125$ then $3/8$ must be 3 times that)

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Measurement		
Read, write and convert the time between analogue and 24-hour digital clocks, including when using Roman Numerals, using appropriate vocabulary (a.m./p.m., morning/afternoon), with prompting.	Read, write and convert the time between analogue and 24-hour digital clocks, including when using Roman Numerals, using appropriate vocabulary (a.m./p.m., morning/afternoon)	
Solve problems converting from hours to minutes, minutes to seconds, years to months, weeks to days, with prompting	Solve problems converting from hours to minutes, minutes to seconds, years to months, weeks to days.	Solve complex problems converting from hours to minutes, minutes to seconds, years to months, weeks to days.
Add and subtract amounts of money within a simple problem-solving context, to include giving exact change (e.g. I have £ 3, how many 50p chocolates can I buy?)	Add and subtract amounts of money within a problem-solving context, to include giving exact change (e.g. I have £ 5, how many pencils can I buy if they are 45p each?)	Add and subtract amounts of money within a multi-step problem-solving context, to include giving exact change (e.g. I have £ 6, what is the most amount of teas and coffees I can buy?)
	Estimate, compare and calculate different measures, including money in pounds and pence.	
Convert from larger to smaller units of measures (e.g. 3kg to 3000g).	Convert from larger to smaller units of measures, to include decimals (e.g. 3.5kg to 3500g)	Convert from larger to smaller units of measures, to include decimals (e.g. 3.5kg to 3500g), being able to convert it back again
Properties of Shape		
Identify lines of symmetry in 2D shapes	Identify lines of symmetry in 2D shapes presented in different orientations	Identify lines of symmetry in 2D shapes in different orientations, being able to complete a 2D shape to make it symmetrical
Measure the perimeter of rectilinear shapes in cm and m, with support	Measure the perimeter of rectilinear shapes in cm and m	Measure the perimeter of a rectilinear shapes in cm and m, drawing a shape from a given perimeter
Find the area of rectilinear shapes by counting squares, with support	Find the area of rectilinear shapes by counting squares	Find the area of rectilinear shapes
Identify and classify the different types of triangles	Identify, describe and classify the different types of triangles	
Identify and order acute and obtuse angles	Identify, compare and order acute and obtuse angles	Identify, compare and order acute and obtuse angles. Applying this within the context of 2-D shapes (e.g. a scalene triangle has 3 acute angles)
		Measure to the nearest 10°, with a protractor, the interior angles of a variety of 2-D shapes
Position, Direction and Movement		
Read any point within the first quadrant on a coordinate grid, with some prompting	Read any point within the first quadrant on a coordinate grid	Read any point within the first quadrant on a coordinate grid, explaining the process that that have completed
Plot specified points (within the first quadrant), including drawing the vertices of a shape, and joining them in the correct order (with prompting)	Plot specified points (within the first quadrant), including drawing the vertices of a shape, and joining them in the correct order	Can decide where points should be plotted when given a shape and starting point (within the first quadrant). Joining them in the correct order
Can describe (with prompting) a translation that has been completed, up/down or left/right	Can describe a translation that has been completed, up/down or left/right	Can describe and record (using positive and negative signs) a translation that has been completed, up/down or left/right
Statistics		
Interpret, construct and deduct from time graphs and bar charts	Interpret, construct and deduct from time graphs and bar charts.	Interpret, construct and deduct from time graphs and bar charts.

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	Understanding the difference between the two representations	Understanding the difference between the two representations whilst using the vocabulary continuous and discrete data.
Solve comparison, sum and difference problems using bar charts, pictograms, tables, and tally charts	Solve comparison, sum and difference problems using bar charts, pictograms, tables, time graphs and tally charts	Solve comparison, sum and difference problems using bar charts, pictograms, tables, time graphs and tally charts. Including creating their own graphs to solve the problems.