MPPS Y6 Maths Assessment Grid - *Statements in **bold** are on the Y6 TAF

Working towards the expected standard in Y6	Working at the expected standard in Y6	Working at greater depth in Y6
Number and Place Value		
Determining the value of each digit in any number up to 10 million	Read, write, order and compare numbers up to 10 million in words and digits. ***Determining the value of each digit**	Read, write, order and compare numbers up to 10million in words and digits. Determining the value of each digit and practically applying the knowledge
Round any whole number up to 100,000s to a required degree of accuracy	Round any whole number up to 10millions to a required degree of accuracy	Round and compare any whole number up to 10 million to a required degree of accuracy (e.g. multiple numbers that round to the same number).
Calculate with and use negative numbers within a context (e.g. Difference between -5°C and -10°C)	Calculate with and across negative numbers within a context (e.g. Difference between -5°C and 8°C).	Solve practical problems involving negative numbers (e.g. changes in temperatures).
Identify common factors and multiples	Identify common factors, common multiples and prime numbers	Identify and recall prime numbers up to 99 and be able to identify prime numbers much higher than this
		Identify common factors, common multiples and prime numbers. Applying this to other mathematical areas (e.g. equivalent fractions).
Addition and Subtraction		
Add and subtract whole numbers up to 4 digits using formal methods (some prompting)	Add and subtract whole numbers with more than 4 digits using formal methods	Add and subtract multiple whole numbers with more than 4 digits using formal methods including a problem-solving context.
Calculate expressions (written and mental) in the correct sequence (e.g. 7+2x3=13).	***Calculate expressions (written and mental) involving brackets in the correct sequence (e.g. 3+2[5+7]=27).**	Calculate expressions (written and mental) involving brackets and all 4 operations in the correct sequence, including missing operations (e.g. (3 ? 5)x6 = 5x 100 ?7).
	Use estimation and rounding to check answers to calculations, including within a problem-solving context	Use estimation and rounding to check answers to calculations, including within a problem-solving context. Providing written justification as to why they made their choice.
Multiplication and Division		
Multiply numbers up to 3 digits by 2 digits using formal methods.	Multiply numbers up to 4 digits by 2 digits using formal methods	Multiply multiple numbers up to 4 digits by 2 digits using formal methods
Divide numbers up to 3 digits by 2 digits using formal methods (including use of remainders within context – fractions/rounding)	Divide numbers up to 4 digits by 2 digits using formal methods (including use of remainders within context – fractions/rounding)	Divide numbers up to 4 digits by 2 digits using formal methods, being able to express remainders in a variety of ways including decimals to 2 decimal places
Multiple square or cube numbers by integers (e.g. 32 x 4)	Multiply numbers that include square and cube numbers (e.g. 32 x 23)	Multiply numbers that include square and cube numbers (e.g. 32 x 23) within an expression (e.g. 32 x (23 x 4).
Multiply whole numbers by decimals up to 1 d.p.	Multiply whole numbers by decimals up to 2 d.p.	Multiply decimals by decimals up to 2 d.p.
Divide numbers where the answer has up to 1 d.p.	Divide numbers where the answer has up to 2 d.p.	Divide numbers where the answer has several decimal places
Solve multi-step multiplication and division problems (using multiple operations), deciding which operation to apply. To include scaling problems (1 biscuit = 10g, how much for packet?).	***Solve multi-step multiplication and division problems (using multiple operations), deciding which operation to apply and why. To include scaling problems (1 biscuit = 10g, how much for ¼ packet?)**	Solve multi-step multiplication and division problems (using a combination of all 4 operations), deciding which operation to apply and why. To include scaling problems (1 biscuit = 10g, how much for 4/5 packet?)

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Fractions and Decimals		
Recognise equivalent fractions, using common factors to simplify and common multiples to convert to the same denominator	Recognise equivalent fractions (including improper), using common factors to simplify and common multiples to convert to the same denominator	Recognise equivalent fractions (including improper and mixed numbers), using common factors to simplify and common multiples to convert to the same denominator
Compare and order fractions with different denominators	Compare and order fractions, including mixed numbers, with different denominators	Compare and order fractions, including mixed numbers and improper fractions, with different denominators
Add fractions with different denominators	Add fractions, including mixed numbers, with different denominators	Add fractions, including mixed numbers and improper fractions, with different denominators
Subtract fractions with different denominators	Subtract fractions, including mixed numbers, with different denominators	Subtract fractions, including mixed numbers and improper fractions, with different denominators
Multiply pairs of fractions	Multiply pairs of proper fractions, writing the answer in its simplest form	Multiply pairs of proper, improper and mixed fractions, writing the answer in its simplest form
Divide proper fractions by whole numbers, with prompts	Divide proper fractions by whole numbers	Divide proper fractions by fractions and whole numbers
Identify the place value of decimals to 2 d.p. Multiply, divide and round them by 10, 100 and 1000	Identify the place value of decimals to 3 d.p. Multiply, divide and round them by 10, 100 and 1000.	Identify the place value of decimals to 4 d.p. Multiply, divide and round them by 10, 100 and 1000
Multiply numbers with 1 digit and 1 d.p. by whole numbers	Calculate a percentage of an amount, using multiples of 5 and 10 (e.g. 45% of …)	Calculate any percentage of an amount (e.g. 71% of …)
Calculate a percentage of an amount, using multiples of 10 (e.g. 30% of …)	*Can recall and express the equivalents between simple Fraction, Decimal and Percentage within a context	Can recall and express the equivalents between simple Fractions, Decimals and Percentages within a context and identify the most appropriate form for a task
Can recall and express the equivalents between simple Fraction, Decimal and Percentage within a context (with some prompting).	*Convert between decimals to fractions and percentages to fractions	Convert all Fractions, Decimals and Percentages into their equivalents
Convert between simple decimals to fractions and percentages to fractions		
Measurement		
Apply time knowledge to a context with some support (e.g. finding the length of a bus journey or the start/time of a cinema viewing)	*Apply time knowledge to a context (e.g. finding the length of a bus journey or the start/time of a cinema viewing).	Apply time knowledge to a context (e.g. finding the length of a bus journey or the start/time of a cinema viewing). Including within multi-step problems
Interpret and deduct from simple timetables within a context	Interpret and deduct from timetables within a context	Interpret and make multiple, complex deductions from timetables within a context
Solve multi-step problems involving money, to include finding change from multiple purchases, with some prompting	Solve multi-step problems involving money, to include finding change from multiple purchases	Solve multi-step problems involving money, to include finding change from multiple purchases. Applying this alongside other measure knowledge
Convert between miles and kilometres, with guidance	*Convert between miles and kilometres.	Convert between miles and kilometres, applying this knowledge to contexts containing both measures.
Properties of Shape		
Draw 2-D shapes using given dimensions and/or angles	Draw 2-D shapes using given dimensions and angles	Draw complex 2-D shapes using given dimension and angles
Recognise, describe and build simple 3-D shapes including making simple	Recognise, describe and build simple 3-D shapes including making nets	Recognise, describe and build a variety of 3-D shapes including making

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nets		nets
Compare and classify shapes using properties and sizes. Finding unknown angles in any triangles or quadrilaterals	***Compare and classify shapes using properties and sizes. Finding unknown angles in any triangles, quadrilaterals and regular polygons**	Compare and classify shapes using properties and sizes, including lines of symmetry and pairs of parallel/perpendicular lines. Finding unknown angles in any triangles, quadrilaterals and regular polygons
Identify the radius, diameter and circumference of a circle	Identify the radius, diameter and circumference of a circle. Including knowing that diameter is twice the radius	Identify the radius, diameter and circumference of a circle. Including knowing that diameter is twice the radius. Begin to understand how to calculate the area of a circle
Calculate the perimeter and area for rectilinear shapes and with support calculate them for triangles	***Calculate the perimeter and area for rectilinear shapes and use a formula to calculate them for triangles & parallelograms**	Calculate the perimeter and area for complex rectilinear shapes and use a formula to calculate them for triangles & parallelograms
Calculate simple volume of cubes and cuboids	Calculate the volume of cubes and cuboids	Recognise, estimate and calculate angles on a straight line or within a variety of shapes
Recognise, estimate and calculate simple angles on a straight line or within a shape	Recognise, estimate and calculate angles on a straight line or within a shape.	Use mathematical reasoning to find missing angles in complex shapes
Use mathematical reasoning to find missing angles in a simple shape	***Use mathematical reasoning to find missing angles in a shape**	
Position, Direction and Movement		
Describe positions with the first two quadrants, beginning to apply this to the 3rd and 4th quadrants	Describe positions on the full coordinate grid (all four quadrants)	Describe positions on the full coordinate grid (all four quadrants). Understanding that the co-ordinates would change if the origin were to shift
Identify the co-ordinates of the missing vertex from a rectangle on a co-ordinate grid.	Identify the co-ordinates of the missing vertex from a rectangle, triangle or rhombus on a co-ordinate grid	Identify the co-ordinates of the missing vertex from a rectangle, triangle or rhombus on a co-ordinate grid and explain how it could be found using geometric properties and language.
Translate and reflect a simple shape on a co-ordinate grid with some prompting.	Translate and reflect a simple shape on a co-ordinate grid	Translate and reflect a compound shape on a co-ordinate grid
Statistics		
Interpret and complete complex tables, with prompting	Interpret and complete complex tables	Interpret, complete and devise their own complex tables
Interpret data from pie charts to answer complex reasoning and numerical questions	Interpret and apply data from pie charts to answer complex reasoning and numerical questions. Beginning to be able to make comparisons across multiple pie charts	Interpret and apply data from pie charts to answer complex reasoning and numerical questions. Including making comparisons across multiple pie charts
Present data in a pie chart and line graph with support and prompting.	Present data through an independently constructed pie chart or line graph.	Present data through an independently constructed pie chart or line graph. Explaining which the most appropriate form to present their data is
Collect data, within a context, to be represented through a pie chart or line graph.	Collect data, within a context, to be represented through a pie chart or line graph. Answering questions about changes that may occur	Collect data, within an investigative context, to be represented through a pie chart or line graph. Answering questions about changes that may occur
Calculate and compare mean as an average	Calculate and compare mean as an average. Deducing information from the comparison (e.g. which country has the longest river)	Calculate and compare mean as an average. Deducing information and reasoning from the comparison (e.g. which country has the longest river)
Algebra		
Solve simple algebra problems (e.g. what is x if x+3=17)	Solve algebra problems involving coefficients (e.g. what is x if 3x- 5=16).	Solve binomial algebra problems including coefficients (e.g. what is x if 3x-5=14+2).
Describe linear sequence	Generate and describe linear number sequences	Generate and describe linear number sequences, including sequences

		that involve non consecutive patterns
Begin to understand how to express missing number problems algebraically	Express missing number problems algebraically	Express more complex missing number problems algebraically
Find pairs of numbers that satisfy an equation with two unknowns, with support. (e.g.? + ? = 73)	Find pairs of numbers that satisfy an equation with two unknowns (e.g.? + ? = 1.5)	Find multiple pairs of numbers that satisfy an equation with two unknowns (e.g.? + ? = 3.25).
Ratio and Proportion		
Solve simple problems involving the relative sizes of two quantities where missing values can be found by using multiplication and division facts	Solve problems involving the relative sizes of two quantities where missing values can be found by using multiplication and division facts.	Solve complex problems involving the relative sizes of two quantities where missing values can be found by using multiplication and division facts.
Solve simple problems involving unequal sharing and grouping using knowledge of fractions and multiples	Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	Solve complex problems involving unequal sharing and grouping using knowledge of fractions and multiples