

## Year 5 Mathematics Autumn Assessment

W/c	Statement	T
30/8 Num& PV	Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit e.g. <i>order a set of multi-digit numbers from smallest to largest - 37 700, 737 570, 737 507, 37 570</i>	
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6/9 Num& PV	Count forwards or backwards in steps of powers of 10 from any given number up to 1 000 000 e.g. <i>197 000, 198 000, 199 000, 200 000, 201 000...</i>	
	Round any number up to 1 000 000 to the nearest 10, 100 and 1000 e.g. <i>265 946 to the nearest 1000 (266 000)</i>	
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	Solve number problems and practical problems that involve number, place value and rounding e.g. <i>What number is halfway between 560 500 and 560 600?</i>	
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13/9 Addition	Add whole numbers with more than 4 digits, including using formal written methods (columnar addition)	
	Add whole numbers with more than 4 digits, including using formal written methods (bar model/ chunking)	
	Add numbers mentally with increasingly large numbers e.g. <i>15 400 – 2000 = 13 400</i>	
	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	
	Solve addition multi-step problems in contexts, deciding which operations and methods to use and why e.g. <i>I have read 124 of the 526 pages of my book; how many more pages must I read to reach the middle?</i>	
20/9 Sub	Subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition)	
	Subtract whole numbers with more than 4 digits, including using formal written methods (bar model/ chunking)	
	Subtract numbers mentally with increasingly large numbers e.g. <i>15 400 – 2000 = 13 400</i>	
	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	
	Solve subtraction multi-step problems in contexts, deciding which operations and methods to use and why e.g. <i>I have read 124 of the 526 pages of my book; how many more pages must I read to reach the middle?</i>	
27/9 M & D	Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers	
	Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers	
	Multiply numbers mentally drawing upon known facts e.g. <i>60x9</i>	
	Multiply whole numbers and those involving decimals by 10, 100 and 1000 e.g. <i>456÷100=4.56</i>	
4/10 M & D	Know and use the vocabulary of prime numbers and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19	
	Divide numbers up to 4 digits by a one- or two-digit number using a formal written method	
	Multiply and divide numbers mentally drawing upon known facts e.g. <i>60x9</i> Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 e.g. <i>456÷100=4.56</i>	
	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign e.g. <i>40x8=500 -</i>	
11/10 Meas	Convert between different units of measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) e.g. <i>15.7cm = 157mm</i>	
	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres e.g. <i>find the perimeter of an L shape where one or two side lengths are not given</i>	
	Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm <sup>2</sup> ) and square metres (m <sup>2</sup> ) and estimate the area of irregular shapes	
	Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling	
18/10 Fractions (including decimals and	<i>Know that percentages, decimals and fractions are different ways of expressing proportions</i> <i>Count forwards and backwards in fractions and decimals bridging zero</i>	
	Compare and order fractions whose denominators are all multiples of the same number e.g. <i>put these fractions in</i>	

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percentages)	order from the smallest: $\frac{5}{12}$ , $\frac{5}{6}$ , $\frac{11}{12}$ , $\frac{2}{3}$	
	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <i>making links to decimals and measures</i> e.g. $\frac{37}{100}$ metre = 0.37m	
	Read and write decimal numbers as fractions e.g. $0.71 = \frac{71}{100}$	
	<i>Mentally add and subtract:</i> <ul style="list-style-type: none"> <li>○ tenths e.g. <math>0.8 - 0.3</math></li> <li>○ one-digit whole numbers and tenths e.g. <math>3.4 + 2.6</math></li> <li>○ complements of 1 e.g. <math>0.85 + 0.15 = 1</math></li> </ul>	
	Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per hundred”, and write percentages as a fraction with denominator hundred, and as a decimal fraction e.g. $43\% = \frac{43}{100} = 0.43$	
	Recognise that percentages are proportions of quantities e.g. 40% of the class are boys; what percentage are girls? as well as operators on quantities e.g. find 40% of 30 children.	
<b>Half Term</b>		
1/11 Shape	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations e.g. using isometric paper	
	Draw lines accurately to the nearest millimetre and use conventional markings for parallel lines and right angles.	
	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	
	Use the properties of rectangles to deduce related facts and find missing lengths and angles e.g. all angles are right angles, diagonals are congruent (same length) and bisect each other (divide into two equal parts), one diagonal separates the rectangle into two congruent triangles...	
8/11 Pos & Direc	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.	
	Describe positions on the full coordinate grid (all four quadrants) e.g. (-3, 7)	
	Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	
	Predict missing coordinates of quadrilaterals by using the properties of shapes, which may be expressed algebraically e.g. translating vertex (a, b) to (a-2, b+3), or find the other vertices of a square, given two of them are (a, b) and (a+d, b+d)	
Ratio & Prop	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts e.g. adjust a recipe for 4 people, to serve 20 people	
15/11 Algebra	Use symbols and letters to represent variables and unknowns in mathematical situations... <ul style="list-style-type: none"> <li>○ missing numbers, lengths, coordinates and angles e.g. <math>3x=24</math> or the angles in a triangle are <math>35^\circ</math>, <math>120^\circ</math> and <math>y^\circ</math>; find <math>y</math></li> <li>○ mathematics and science formulae e.g. <math>A=l \times w</math></li> <li>○ arithmetic rules e.g. <math>a+b=b+a</math></li> </ul>	
	Express missing number problems algebraically e.g. $17 = x + 4.5$	
	Use simple formulae expressed in words e.g. write a formula for the number of months, $m$ , in $y$ years. ( $y=12m$ )	
	Enumerate all possibilities of combinations of two variables e.g. investigate how many different ways 2 red eggs can be placed in a 6-space egg carton, by starting with a 3-space carton, 4-space carton etc?	
22/11 Data	Complete, read and interpret information in tables, including timetables.	
29/11 Stats	Interpret and construct pie charts and line graphs and use these to solve problems e.g. draw a pie chart to show how Jack spends his £36 birthday money: <ul style="list-style-type: none"> <li>○ £9 snacks</li> <li>○ £15 toys</li> <li>○ £12 books</li> </ul> <p>Encounter and draw graphs relating two variables, arising from their own enquiry and in other subjects e.g. a scattergraph connecting heights of children and their long-jump distance</p>	
6/12	<b>Assessment Week - PUMA</b>	
13/12	Follow up week and PUMA review	
	Notes:	