

2016-17		Band 5 Maths Assessment								
Number, place value, approximation and estimation				Addition and Subtraction				Measures		
<u>Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit</u>				<u>Add and subtract whole numbers with more than 4 digits.</u>				<u>Convert between different units of measure (e.g. kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre)</u>		
Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000				Add and subtract whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction)				Understand and use basic equivalences between metric and common imperial units and express them in approximate terms		
<u>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero</u>				<u>Add and subtract numbers mentally with increasingly large numbers</u>				<u>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres</u>		
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				<u>Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and</u>		
Solve number problems and practical problems that involve all of the above				Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why				Estimate the area of irregular shapes		
Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals				Multiplication and division				Recognise and estimate volume (e.g. using 1 cm ³ blocks to build cubes and cuboids) and capacity (e.g. using water)		
Fractions, Decimals + %				<u>Identify multiples and factors, including finding all factor pairs and common factors.</u>				Solve problems involving converting between units of time		
<u>Compare and order fractions whose denominators are all multiples of the same number</u>				<u>Solve problems involving multiplication and division where larger numbers are used by decomposing them into their factors</u>				Solve problems involving all 4 operations and units of measure (e.g. length, mass, volume, money) using decimal notation including scaling.		
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths + hundredths.				Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers				Geometry: properties of shapes		
Recognise mixed numbers and improper fractions and convert from one form to the other				Establish whether a number up to 100 is prime and recall prime numbers up to 19				Identify 3-D shapes, including cubes and cuboids, from 2-D representations		

Add and subtract fractions with the same denominator and related fractions; write mathematical statements >1 as a mixed number (e.g. $2/5 + 4/5 = 6/5 = 11/5$)				Multiply numbers up to 4 digits by a one- or two-digit number using an efficient written method, including long multiplication for two-digit numbers				know angles are measured in degrees; estimate and measure them			
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams				Multiply and divide numbers mentally drawing upon known facts				<u>Draw given angles, measuring them in degrees (°)</u>			
<u>Read and write decimal numbers as fractions (e.g. $0.71 = 71/100$)</u>				Divide numbers up to 4 digits by a one-digit number using the efficient written method of short division and interpret remainders appropriately for the context				Identify: multiples of 90°			
Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents				Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000				Identify: angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)			
Round decimals with two decimal places to the nearest whole number and to one decimal place				Recognise and use square numbers and cube numbers, and the notation for squared ² and cubed ³				Identify: angles at a point and one whole turn (total 360°)			
<u>Read, write, order and compare numbers with up to three decimal places</u>				<u>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</u>				Use the properties of a rectangle (including squares) to deduce related facts such as missing lengths and angles.			
Solve problems involving number up to three decimal places				Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates				<u>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles</u>			
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				Geometry: Position + Direction				Statistics			
<u>Solve problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those with a denominator of a multiple of 10 or 25</u>				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.				Solve comparison, sum and difference problems using information presented in line graphs			
								<u>Complete, read and interpret information in tables, including timetables</u>			