

# Maths Assessment Grid : National Curriculum Objectives : Year 5

Group: <input type="text"/>		Year: <input type="text"/>																		
Year 5																				
Number - number and place value	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	Autumn																		
		Spring																		
		Summer																		
	count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	Autumn																		
		Spring																		
		Summer																		
	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	Autumn																		
		Spring																		
		Summer																		
	round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	Autumn																		
		Spring																		
		Summer																		
	solve number problems and practical problems that involve all of the above	Autumn																		
		Spring																		
		Summer																		

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Group: <input type="text"/>		Year: <input type="text"/>																			
<b>Year 5</b>																					
Number - addition and subtraction	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	Autumn																			
		Spring																			
		Summer																			
	add and subtract numbers mentally with increasingly large numbers	Autumn																			
		Spring																			
		Summer																			
	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Autumn																			
		Spring																			
		Summer																			
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Autumn																			
		Spring																			
		Summer																			

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Group: <input type="text"/>		Year: <input type="text"/>																		
Year 5																				
Number - multiplication and division	identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	Autumn																		
		Spring																		
		Summer																		
	know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	Autumn																		
		Spring																		
		Summer																		
	establish whether a number up to 100 is prime and recall prime numbers up to 19	Autumn																		
		Spring																		
		Summer																		
	multiply numbers up to 4 digits by a one- or twodigit number using a formal written method, including long multiplication for two-digit numbers	Autumn																		
		Spring																		
		Summer																		
	multiply and divide numbers mentally drawing upon known facts	Autumn																		
		Spring																		
		Summer																		
	divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	Autumn																		
		Spring																		
		Summer																		
multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Autumn																			
	Spring																			
	Summer																			

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Group: <input type="text"/>		Year: <input type="text"/>																		
Year 5																				
Number - multiplication and division	recognise and use square numbers and cube numbers, and the notation for squares ( $^2$ ) and cubed ( $^3$ )	Autumn																		
		Spring																		
		Summer																		
	solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	Autumn																		
		Spring																		
		Summer																		
	solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Autumn																		
		Spring																		
		Summer																		
	solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Autumn																		
		Spring																		
		Summer																		

# Maths Assessment Grid : National Curriculum Objectives : Year 5

Group: <input type="text"/>		Year: <input type="text"/>																		
Year 5																				
Number - fractions (including decimals and percentages)	compare and order fractions whose denominators are all multiples of the same number	Autumn																		
		Spring																		
		Summer																		
	identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	Autumn																		
		Spring																		
		Summer																		
	recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $> 1$ as a mixed number	Autumn																		
		Spring																		
		Summer																		
	add and subtract fractions with the same denominator and denominators that are multiples of the same number	Autumn																		
		Spring																		
		Summer																		
	multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Autumn																		
		Spring																		
		Summer																		
	read and write decimal numbers as fractions	Autumn																		
		Spring																		
		Summer																		

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Group: <input type="text"/>		Year: <input type="text"/>																		
Year 5																				
Number - fractions (including decimals and percentages)	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	Autumn																		
		Spring																		
		Summer																		
	round decimals with two decimal places to the nearest whole number and to one decimal place	Autumn																		
		Spring																		
		Summer																		
	read, write, order and compare numbers with up to three decimal places	Autumn																		
		Spring																		
		Summer																		
	solve problems involving number up to three decimal places	Autumn																		
		Spring																		
		Summer																		
	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 100, and as a decimal	Autumn																		
		Spring																		
		Summer																		
	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	Autumn																		
		Spring																		
		Summer																		

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Group: <input type="text"/>		Year: <input type="text"/>																		
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Measurement	convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	Autumn																		
		Spring																		
		Summer																		
	understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	Autumn																		
		Spring																		
		Summer																		
	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Autumn																		
		Spring																		
		Summer																		
	calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm <sup>2</sup> ) and square metres (m <sup>2</sup> ) and estimate the area of irregular shapes	Autumn																		
		Spring																		
		Summer																		
	estimate volume [for example, using 1 cm <sup>3</sup> blocks to build cuboids (including cubes)] and capacity [for example, using water]	Autumn																		
		Spring																		
		Summer																		
	solve problems involving converting between units of time	Autumn																		
		Spring																		
		Summer																		
	use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	Autumn																		
		Spring																		
		Summer																		

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Group: <input type="text"/>		Year: <input type="text"/>																		
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Geometry - properties of shapes	identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Autumn																		
		Spring																		
		Summer																		
	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	Autumn																		
		Spring																		
		Summer																		
	draw given angles, and measure them in degrees (°)	Autumn																		
		Spring																		
		Summer																		
	identify angles at a point and one whole turn (total 360°); angles at a point on a straight line and 21 a turn (total 180°); other multiples of 90°	Autumn																		
		Spring																		
		Summer																		
	use the properties of rectangles to deduce related facts and find missing lengths and angles	Autumn																		
		Spring																		
		Summer																		
	distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Autumn																		
		Spring																		
		Summer																		



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Position and direction	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.	Autumn																
		Spring																
		Summer																

Statistics	solve comparison, sum and difference problems using information presented in a line graph	Autumn																
		Spring																
		Summer																
	complete, read and interpret information in tables, including timetables	Autumn																
		Spring																
		Summer																