

Automaticity by Year Group

Year Group	Area of Maths	Automaticity Fact	Related vocab
Reception	Number and place value	<ul style="list-style-type: none"> Count forwards to 20 Identify one more and one less, to 10 Subitise up to 5 Say the cardinal number value when shown a numeral to 10 	Zero Nothing
Year 1	Number and place value	<ul style="list-style-type: none"> Count to 100 forwards and backwards from any given number Write numbers to 20 Count in multiples of two, from zero, in order (up to 20) Count in multiples of fives, from zero, in order (up to 50) Count in multiples of ten, from zero, in order (up to 100) Identify one more and one less than a given number, within 100 	Digit Tens Ones
Year 2	Number and place value	<ul style="list-style-type: none"> Count in steps of 2, 3, 5, 10, forwards and backwards, from 0 Read and write numbers to 100 Recognise odd and even numbers to 10 Identify tens and ones in a number, e.g. <i>'there are two tens', when pointing to a place value chart with dienes</i> Read < as 'less than' Read > as 'greater than' 	Hundreds Greater than Less than Partition
Year 3	Number and place value	<ul style="list-style-type: none"> Count in steps of 4 and 8, forwards and backwards, from 0 Count in steps of 50 and 100, forwards and backwards, from 0 and any given number Find 10 or 100 more or less than any given number, with no bridging across 100 or 1000 Say the place value of digits in a three-digit number (hundreds, tens and ones) Read and write numbers to 1000, including in words Read Roman numerals to 12 Read I as '1' Read V as '5' Read X as '10' 	Roman numeral

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Year 4	Number and place value	<ul style="list-style-type: none"> Count in steps of 6, 7, 9, forwards and backwards, from 0 Count in steps of 25 and 1000, forwards and backwards, from 0 and any given number Count backwards through zero to include negative numbers Recognise place value of each digit in 4-digit numbers (thousands, hundreds, tens, ones) Write a zero (place holder) where there are no hundreds, tens or ones Read C as '100' Read L as '50' 	Place holder
Year 5	Number and place value	<ul style="list-style-type: none"> Read and write numbers to 1,000,000 including words Count forwards and backwards in powers of 10, up to 1,000,000 Read D as '500' Read M as '1000' 	
Year 6	Number and place value	<ul style="list-style-type: none"> Read and write numbers to 10,000,000 including words Say the place value of digits, using a place value chart, in numbers up to 10,000,000 	
Reception	Addition and subtraction	<ul style="list-style-type: none"> Say the number bond that goes with 1, 2, 3, 4 and 5, to make 5 	More Less Same
Year 1	Addition and subtraction	<ul style="list-style-type: none"> Recall number bonds to 10 including subtraction facts Recall number bonds within 10 (complements) including subtraction facts Read + as 'add' Read - as 'take away' or 'minus' Read = as 'equals' Add zero to any number knowing that it doesn't change the total 	Add Take away Minus Equal Total

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Year 2	Addition and subtraction	<ul style="list-style-type: none"> Recall number bonds to 20 including subtraction facts Say that addition can be done in any order (commutativity) Say that addition and subtraction are the inverse of one another 	Fewer Subtract Inverse Sum Difference
Year 3	Addition and subtraction	<ul style="list-style-type: none"> Recall number bonds within 100, including subtraction facts Add and subtract ones to a 3 digit number Add and subtract multiples of ten to a 3 digit number, with no exchange Add and subtract multiples of a hundred to a 3 digit number, with no exchange 	
Year 4	Addition and subtraction	<ul style="list-style-type: none"> Recall addition and subtraction facts with multiples of 10, within thousands Add and subtract multiples of a thousand to a 4 digit number, with no exchange 	
Year 5	Addition and subtraction	<ul style="list-style-type: none"> Add and subtract multiples of ten-thousand to a 5 digit number, with no exchange 	
Year 6			
Reception	Multiplication and division	<ul style="list-style-type: none"> Double numbers and quantities of objects up to 5+5 	Double
Year 1	Multiplication and division	<ul style="list-style-type: none"> Double numbers and quantities within and to 20 Halve numbers and quantities within and to 10 	Multiply Divide Halve Lots of

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Year 2	Multiplication and division	<ul style="list-style-type: none"> • Halve numbers to and within 20 • Recall multiplication and division facts for 2 (up to 24) • Recall multiplication and division facts for 5 (up to 60) • Recall multiplication and division facts for 10 (up to 120) • Count in odd numbers to 20 • Read \times as 'multiply' • Read \div as 'divide' 	<p>Multiply Divide Halve</p>
Year 3	Multiplication and division	<ul style="list-style-type: none"> • Recall multiplication and division facts for 3 (up to 36) • Recall multiplication and division facts for 4 (up to 48) • Recall multiplication and division facts for 8 (up to 96) • Say that multiplication can be done in any order (commutativity) • Say that multiplication and division are the inverse of one another 	
Year 4	Multiplication and division	<ul style="list-style-type: none"> • Recall multiplication and division facts for 6 (up to 72) • Recall multiplication and division facts for 7 (up to 84) • Recall multiplication and division facts for 9 (up to 108) • Recall multiplication and division facts for 11 (up to 132) • Recall multiplication and division facts for 12 (up to 144) • Multiply any given number by 1 • Multiply any given number by 0 	
Year 5	Multiplication and division	<ul style="list-style-type: none"> • Recall prime numbers up to 20 • Recall square numbers up to 12 squared • Multiply and divide by 10 and 100 • Read the notation for square and cubed numbers 	<p>Factor Multiple</p>
Year 6	All four operations	<ul style="list-style-type: none"> • Say what the letters of BIDMAS mean: Brackets, Indices, Division, Multiplication, Addition, Subtraction • 	

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Reception	Fractions		
Year 1	Fractions	<ul style="list-style-type: none"> Recognise a half within shapes (pictorial representations) 	Share Half Part Whole
Year 2	Fractions	<ul style="list-style-type: none"> Say half of any even number to 20 Recognise a half, quarter, third, three quarters within shapes Read $\frac{1}{2}$ as 'half' Read $\frac{1}{4}$ as 'quarter' Read $\frac{1}{3}$ as 'third' Read $\frac{3}{4}$ as 'three quarters' 	Quarter Third Three quarters
Year 3	Fractions	<ul style="list-style-type: none"> Count in tenths, up to one whole Count in halves and quarters up to 10 Identify the numerator and denominator in a fraction Read $\frac{1}{10}$ as 'a tenth' 	Denominator Numerator
Year 4	Fractions	<ul style="list-style-type: none"> Count up and down in hundredths (<i>1 hundredth, 2 hundredths etc. and 0.1, 0.2 etc.</i>) Say decimal equivalents of $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ Say decimal equivalents of tenths and hundredths 	
Year 5	Fractions	<ul style="list-style-type: none"> Round decimals with 1dp to the nearest whole Count in thousandths Say percentage equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{3}{4}$ Say the percentages for any tenth fraction or decimal Say the percentage for any hundredth fraction or decimal Read % as the percentage symbol 	Percentage
Year 6	Fractions	<ul style="list-style-type: none"> Say the place value of digits, using a place value chart, in numbers with up to three decimal places 	

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Reception	Algebra		
Year 1	Algebra		
Year 2	Algebra		
Year 3	Algebra		
Year 4	Algebra		
Year 5	Algebra	<ul style="list-style-type: none"> Recognise equity within algebra, including missing numbers 	
Year 6	Algebra	<ul style="list-style-type: none"> Say the formulae for calculating perimeter and area of rectangles: height x width Say the formula for calculating area of triangles: height x width, divided by 2 Say the formula for calculating volume of cubes and cuboids: height x width x depth 	
Reception	Measurement		First, then, next, after, later, <i>e.g. when discussing the visual timetable</i>
Year 1	Measurement	<ul style="list-style-type: none"> Say the days of the week 	Comparative language for measures (capacity, length/ height, mass): longer, shorter, taller, full, empty, heavier, lighter
Year 2	Measurement	<ul style="list-style-type: none"> Say the longer/shorter length of time, <i>e.g. when comparing day and week</i> Say that there are 60 minutes in an hour Say that there are 24 hours in a day Say the months of the year Recall time to o'clock and half past on an analogue clock Read £ as 'pounds' 	Pounds Pence Coins Notes

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		<ul style="list-style-type: none"> • Read p as 'pence' • Recognise the value of coins and notes (<i>1p, 2p, 5p, 10p, 20p, 50p, £1, £2 coins; £5, £10, £20 notes</i>) • Say that 'm' and 'cm' are linked with length and height • Say that 'ml' and 'l' are linked with capacity and volume • Say that 'g' are linked with mass 	
Year 3	Measurement	<ul style="list-style-type: none"> • Say that there are 60 seconds in a minute • Say that there are 365 days in a year • Say the months of the year, in order • Recall time to quarter past and quarter to • Recall times using 24-hour analogue clock and am/pm • Point left and right 	<p>Clockwise</p> <p>Anti-clockwise</p>
Year 4	Measurement	<ul style="list-style-type: none"> • Read time to 5 minute intervals on an analogue clock • Read times on a 24 hour digital clock and convert pm hours to 12 hour times, e.g. read 17.45 as 5.45pm • Say that there are 1000m in 1km; 100cm in 1m; 100mm in 1cm; 1000g in 1kg; 1000ml in 1l • Say that there are 30 minutes in half hour; 15 minutes in a quarter of an hour; 45 minutes in three quarters of an hour • Say that there are 120 minutes in 2 hours • Say that there are 366 days in a leap year • Say that there are 7 days in a week and 14 days in a fortnight • Say the amount of days in each month 	Perimeter
Year 5	Measurement	<ul style="list-style-type: none"> • Say that there are 500m in half of 1km; 50cm in half of 1m; 500g in half of 1kg; 500ml in half of 1l • Recall complements within 60 	Area
Year 6	Measurement	<ul style="list-style-type: none"> • Recall the equivalent conversion of measure for km and miles 	Volume

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Reception	Geometry	<ul style="list-style-type: none"> Find shapes: circle, square, triangle, rectangle 	Positional language: top, bottom, middle, inside, in front, behind, next to
Year 1	Geometry	<ul style="list-style-type: none"> Name rectangle, square, circle, triangle Name cube, sphere, pyramid 	
Year 2	Geometry	<ul style="list-style-type: none"> Name regular pentagon, hexagon, octagon Say the number of sides on 2D shapes (square, triangle, rectangle, pentagon, hexagon, octagon) Name prism, cone, cuboid, cylinder, pyramid 	Side Face Edge Vertex Vertices
Year 3	Geometry	<ul style="list-style-type: none"> Say how many sides are on heptagon, nonagon, decagon Say if an angle is a right angle or greater than/less than a right angle Name quadrilaterals: rectangle, square, parallelogram, rhombus, trapezium, kite 	Regular Irregular Horizontal Vertical Parallel Perpendicular
Year 4	Geometry	<ul style="list-style-type: none"> Name rhombus, parallelogram, trapezium, kite Name types of triangles: right-angle, equilateral Say that a right angle is 90° Say that obtuse angles are bigger than right angles and acute angles are smaller than right angles Say the order of coordinates in a pair of coordinates 	Right angle Equilateral

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Year 5	Geometry	<ul style="list-style-type: none"> Recall multiples of 90, up to 360 Recall complements to and within 180 and 360 Say that the angles in a rectangle add up to 360° Say that angles on a straight line add up to 180° Say that a reflex angle is more than 180° and less than 360° Explain terms circumference/diameter/radius 	Translation
Year 6	Geometry	<ul style="list-style-type: none"> Say that angles in quadrilaterals add up to 360° Say that angles in triangles add up to 180° Say that vertically opposite angles are always equivalent Say that angles around a point add up to 360° 	
Reception	Statistics		
Year 1	Statistics		
Year 2	Statistics	<ul style="list-style-type: none"> Read IIII as 'a five in tally marks' Identify the most/least on block graphs 	
Year 3	Statistics		
Year 4	Statistics		
Year 5	Statistics		
Year 6	Statistics	Say that a whole pie chart represents 100%	