Mathematics Non-Negotiables (Minimum end of year expectations)

	Rec	Y1	Y2	Y3
Counting & ordering	Count reliably to 20. Subitise to 5. Order numbers 1 – 20.	Count to & across 100, forwards & backwards from any number. Use < > =.	Compare & order numbers up to 100 and use < > =.	Compare & order numbers up to 1,000.
Numbers & more/less	Read numbers to 20 in numerals. Write numbers to 10 in numerals. Say 1 more/ 1 less than any number to 20. Compare quantities up to 10 saying if one group is greater than/ less than or the same as.	Read & write numbers to 20 in numerals & words. Read & write numbers to 100 in numerals. Say one/ more one less than any number to 100.	Read & write all numbers to 100 in digits & words. Say 10 more/less than any number to 100.	Read & write all numbers to 1,000 in digits & words. Find 10 or 100 more/less than a given number.
Tables & multiples	Count forwards in multiples of 2 and 10.	Count forwards and backwards in multiples of 2, 5 & 10. Answer quick fire questions…How many 5's in 25? What is 6 lots of 2's? etc	Count forwards and backwards in 2, 5 & 10 and in 10s from any number (forward/backward). Recall & use multiplication & division facts for 2, 5 & 10 tables. E,g, How many 5's in 25? What is 6 lots of 2's? etc Count forwards and backwards in multiples of 3 & 4 Recall & use multiplication & division facts for 3,& 4 tables. E,g, How many 3's in 21? What is 6 lots of 4's? etc	Count from 0 in multiples of 4, 8, 50 & 100. Recall & use multiplication & division facts for 3, 4, 8 tables.
Bonds & Facts	Automatically recall number bonds to 5 and some number bonds to 10. Know doubling facts to 5.	Use number bonds & subtraction facts to 20.	Recall & use +/- facts to 20. Derive & use related facts to 100 and beyond.	
Place value & rounding	Order numbers 1 – 20. Before, after	Order numbers to 100	Recognise PV of any 2-digit number. Round numbers to the nearest 10	Recognise PV of any 3-digit number.
Calculations +/-	Add & subtract two single digit numbers. Count on/back to find the answer.	Add & subtract: o 1 digit & 2 digit numbers to 20, including zero. Solve simple addition and subtraction word problems	Add & subtract: o 2-digit nos & ones o 2-digit nos & tens o Two 2-digit nos o Three 1-digit nos Cross the 10's in addition Solve addition and subtraction word problems	Add & subtract: o 3-digit nos & ones o 3-digit nos & tens o 3-digit nos & hundreds Add & subtract: o Numbers with up to 3-digits using written columnar method. Estimate and use inverse to check.
Calculations x/÷	Share objects into equal groups	Solve one-step multiplication & division using objects, pictorial representations and arrays.	Calculate & write multiplication & division calculations using multiplication tables. Write & recognise & use inverse. Solve simple multiplications and division word problems	Multiply: o 2-digit by 1-digit
Fractions & percentages	Half	Recognise half and quarter of object, shape or quantity.	Recognise, find, name & write 1/3; 1/4; 2/4; 3/4. Recognise equivalence of simple fractions e.g 2/4 + 1/2, 3/6 = 1/2	Count up/down in tenths. Compare & order fractions with same denominator. +/- fractions with same denominator within one whole.
Time	Today, yesterday, tomorrow Morning, afternoon, night time Days of the week	Sequence events in chronological order. Use language of day, week, month and year. Tell time to hour & half past.	Tell time to five minutes, including quarter past/to. Solve time word problems	Tell time using 12 and 24 hour clocks; and using Roman numerals. Tell time to nearest minute. Know number of days in each month and number of seconds in a minute.
Position	Use simple positional language such as in, on, under, behind, side.	Use mathematical vocabulary to describe position such as In, on, under, behind, side, left, right, forwards, backwards, half turn, quarter turn	Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).	Identify right angles and recognise that two right angles are a half-turn, three make three quarters of a turn and four are a complete turn.

Shape	Name the 2D shapes square, rectangle, circle, triangle. Describe 2D shapes with vocabulary straight, curved, sides and corners. Name the 3D shapes cube, cuboid, cylinder, pyramid, cone and sphere. Describe 3D shapes using vocabulary flat face and curved surface.	Recognise and name common 3D and 2D shapes. Describe 2D shapes using vocabulary such as corners and sides. Describe 3D shapes with vocabulary such as vertices, edges and faces.	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. Identify 2-D shapes on the surface of 3-D shapes.	Use modelling materials to draw 2D and make 3D shapes. Also, describe 3D shapes in different orientations. Recognise angles as a description of a turn and a property of shape. Identify vertical and horizontal lines and pairs perpendicular and parallel lines.
Measure	Longer/ Shorter Heavier/ Lighter Full/ half full/ empty	Begin to compare and measure using non-standard measures for length, weight and capacity. Recognise and know the value of notes and coins.	Measure using standard units Length m/cm using a ruler Weight g/kg Capacity ml/litres Temperature in celcius Recognise and use the symbols for £ and pence Combine amounts of notes and coins to make a value. Use different combinations of notes and coins to make the same value. Calculate and give change.	Add and subtract measurements. Calculate using money.