

Mathematics non-negotiables (minimum end of year expectations)

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Counting & ordering	Recite numbers to 10. Count out objects from a larger group reliably.	Count reliably to 20. Order numbers 1-20.	Count to & across 100, forwards & backwards from any number.	Compare & order numbers up to 100 and use $>$ $<$ $=$.	Compare & order numbers up to 1000.	Count backwards through zero to include negative numbers. Compare & order numbers beyond 1000. Compare & order numbers with up to 2 decimal places. Read Roman numerals to 100.	Count forwards & backwards with positive & negative numbers through zero. Count forwards/backwards in steps of powers of 10 for any given number up to 1,000,000. Compare & order numbers up to 1,000,000. Compare & order numbers with 3 decimal places. Read Roman numerals to 1000.	Use negative numbers in context & calculate intervals across zero. Compare & order numbers up to 10,000,000.
Numbers & more/less	Recognise numerals 0-5.	Say 1 more/less to 20.	Read & write all numbers to 100 in digits & words.	Read & write numbers to 100 in digits & words. Say 10 more/less than any number to 100.	Read & write all numbers to 1000 in digits and words. Find 10 or 100 more/less than a given number.	Find 1000 more/less than a given number.		
Tables & Multiples			Count in multiples of 1,2,5 & 10.	Count in steps of 2,3 & 5 from any number up to 100 and in 10s from any number (forward/backward). Recall & use multiplication & division facts for 2,5 & 10 tables.	Count from 0 in multiples of 4,8, 50 & 100. Recall & use multiplication & division facts for 3,4 & 8 tables.	Count in multiples of 6,7,9,25 & 1000. Recall & use multiplication & division facts of all tables to 12x12.	Identify all multiples & factors including finding all factor pairs.	Identify common factors, common multiples & prime numbers.
Bonds & Facts			Use bonds & subtraction facts to 20.	Recall and use $-/+$ facts to 20. Derive & use related facts to 100.			Recall prime numbers up to 19. Recognise and use square numbers and cube numbers.	
Place value & rounding				Recognise PV of any 2 digit number.	Recognise PV of any 3 digit number.	Recognise PV of any 4 digit number. Round any number to the nearest 10, 100 or 1000.	Recognise the PV of any number up to 1,000,000. Round any number up to 1,000,000 to the nearest 10,	Round any whole number to a required degree of accuracy.

						Round decimals with 1d.p to the nearest whole number.	100, 1000, 10,000 or 100,000. Round decimals with 2d.p to the nearest whole number and 1d.p.	Identify the value of each digit to 3d.p.	
Calculations +/-		Add & subtract two single digit numbers. Count on/back to find the answer.	Add & subtract: 1 digit & 2 digit numbers to 20, including zero.	Add & subtract: 2 digit no.s and ones 2 digit no.s & tens Two 2 digit no.s Three 1 digit no.s	Add & subtract: - 3 digit no.s and ones - 3 digit no.s & tens - 3 digit no.s & hundreds Add & subtract: Numbers with up to 3 digits using written columnar method Estimate and use the inverse to check.	Add & subtract: Numbers with up to 4 digits using written columnar method. Number with up to 1d.p Estimate & use the inverse to check.	Add & subtract: Numbers with more than 4 digits using formal written method. Numbers with up to 2d.p Use rounding to check answers.	Use knowledge of order of operations to carry out calculations involving 4 operations. Use estimation to check answers.	
Calculations $\times \div$			Solve one-step multiplication & division using objects, pictorial	Calculate & write multiplication & division calculations using multiplication tables. Write, recognise & use the inverse.	Multiply: 2 digit by a 1 digit	Multiply: 2 digit by 1 digit 3 digit by 1 digit	Multiply: 4 digits by 1 digit/2 digits Divide: Up to 4 digits by a 1 digit. Multiply & divide: Whole numbers & decimals by 10, 100 & 1000	Multiply: 4 digit by 2 digit Divide: 4 digit by 2 digit	
Fractions & percentages			Recognise half and quarter of object, shape or quantity.	Recognise, find, name & write $\frac{1}{3}, \frac{1}{4}, \frac{2}{4}, \frac{3}{4}$. Recognise equivalence of simple fractions.	Count up/down in tenths. Compare & order fractions with the same denominator. +/- fractions with the same denominator within one whole.	Count up/down in hundredths. Recognise & write equivalent fractions. +/- fractions with the same denominator.	Recognise & use thousandths. Recognise mixed numbers & improper fractions & convert from one to another. Multiply proper fractions & mixed numbers by whole numbers. Identify & write equivalent fractions.	Add & subtract fractions with different denominators & mixed numbers. Multiply simple pairs of proper fractions, writing the answer in the simplest form. Divide proper fractions by whole numbers.	

								Calculate % of a whole number.	
Time			Sequence events in chronological order. Use language of day, week, month and year. Tell time to the hour & half past.	Tell time to 5 minutes, including quarter past/to.	Tell time using 12 & 24 hour clocks; and using Roman numerals. Tell time to the nearest minute. Know the number of days in each month & number of seconds in a minute.	Read, write & convert time between analogue & digital 12 & 24 hour clocks.	Solve time problems using timetables and converting between different units of time.		