Mathematics Non-Negotiables (Minimum end of year expectations)

	Rec	Y1	Y2	Y3	Y4	Y5	Y6
Counting & ordering	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 1,000.	Count backwards through zero to include negative numbers. Compare & order numbers beyond 1,000. Compare & order numbers with up to 2 decimal places. Read Roman numerals to 100.	Count forwards & backward 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 1,000.	Use negative numbers in context & calculate intervals across zero. Compare & order numbers up to 10,000,000.
Numbers & more/less	. Say 1 more/1 less to 20.	Read & write numbers to 20 in numerals & words. Read & write numbers to 100 in numerals. Say 1 more/1 less 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.	Find 1,000 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 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 & use +/- facts to 20. Derive & use related facts to 100.			Recall prime numbers up to 19. Recognise & use square numbers & 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. Round decimals with 1dp to nearest whole number.	Recognise PV of any number up to 1,000,000. Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 or 100000. Round decimals with 2dp to nearest whole number & 1dp.	Round any whole number to a required degree of accuracy. Identify value of each digit to 3dp.
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.	Add & subtract: o 2-digit nos & ones o 2-digit nos & tens o Two 2-digit nos o Three 1-digit nos	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.	Add & subtract: o Numbers with up to 4-digits using written columnar method. o Numbers with up to 1dp. Estimate and use inverse to check.	Add & subtract: o Numbers with more than 4-digits using formal written method. o Numbers with up to 2dp. Use rounding to check answers.	Use knowledge of order of operations to carry out calculations involving 4 operations. Use estimation to check answers.
Calculations x/÷		Solve one-step multiplication & division using objects, pictorial representations and arrays.	Calculate & write multiplication & division calculations using multiplication tables. Write & recognise & use inverse.	Multiply: o 2-digit by 1-digit	Multiply: o 2-digit by 1-digit o 3-digit by 1-digit	Multiply: o 4-digits by 1-digit/ 2-digit Divide: o Up to 4-digits by 1-digit Multiply & divide: o Whole numbers & decimals by 10, 100 & 1000	Multiply: o 4-digit by 2-digit Divide: o 4-digit by 2-digit
Fractions & percentages		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.	Count up/down in tenths. Compare & order fractions with same denominator. +/- fractions with same denominator within one whole.	Count up/down in hundredths. Recognise & write equivalent fractions +/- fractions with same denominator.	Recognise & use thousandths. Recognise mixed numbers & improper fractions & convert from one to another. Multiply proper fractions & mixed numbers by whole numbers. Identify and 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 whole number.
Time		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.	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.	Read, write & convert time between analogue & digital 12 & 24 hour clocks.	Solve time problems using timetables and converting between different units of time.	