**Mathematics- Non – Negotiables (Minimum end of year expectations)**

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|  | Rec | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
| Counting & ordering | Count reliably to 20  Recognise & Order numbers 1-20  Count with1:1 correspondence | Count to and across 100, forwards & backwards from any number. | Compare & order numbers up to 100 & 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 up to 100. | Count forward & backward with positive 7 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 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 orally in 2’s &10’s  Solve problems, including doubling & sharing. | Count in multiples of 1,2,5 &10 | Count in steps of 2,  3 & 5 from any number up to 100 & 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 facs all tables to 12x 12. | 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. |  |

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| 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 1 dp 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, 1000000.  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:  1 & 2 digit numbers to 20, including zero. | Add & subtract:  2 digit nos & ones  2 digit nos & tens  Two 2 digit nos  Three 1 digit nos | Add & Subtract:  3 digit nos & ones  3 digit nos & tens  3 digit nos & hundreds  Add & Subtract:  Numbers with up to 3 digits using written columnar method  Estimate & use inverse to check. | Add & Subtract:  Numbers with up to 4 digits using written columnar method.  Numbers up to 1dp.  Estimate and use inverse to check. | Add & subtract:  Numbers with more than 4 digits using formal written method.  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 & arrays. | Calculate & write multiplication & division calculations using multiplication tables.  Write & recognise & use inverse | Multiply:  2 digit by 1 digit | Multiply:  2 digits by 1 digit  3 digits by 1 digit | Multiply:  4 digits by 1 digit/ 2 digits  Divide:  Up to 4 digits by 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 | Solve problems involving sharing | Recognise half and quarter of object, shape or quantity. | Recognise, find name & write 1/3, ¼, 2/4, ¾  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 denominations& 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 | Understand time words: today, tomorrow, yesterday.  Use everyday language to talk about time to compare and solve problems | Sequence events in chronological order.  Use language of day, week, month & 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 & number of seconds in a minute | Read, write & convert time between analogue & digital 12 7 24 hour clocks | Solve time problems using timetables & converting between different units of time. |  |