| Wk | Maths Aspect | Y3 Non-Negotiable | Y4 Non- Negotiable | Resources | Y3 NC obj | Y4 NC obj |
| --- | --- | --- | --- | --- | --- | --- |
| 1, 2 & 3 | Number and Place Value  LOGIC | To know the properties of three-digit numbers.  To know how to count in step sizes. | To know the properties of place value for four-digit numbers  To know the number system from zero into negative numbers. | NCETM  Y3 +- 1.18 TP 1,2,3  Y4 +- 1.22 TP 1,2,3  White Rose  Y34 Autumn Block 1 Themes 2,3,4,6,7  PS - NRICH Y3 ‘How would we count?’ ‘Coded Hundred Square’  NRICH Y4 ‘Count me in’ ‘What Distance?’ ‘Ordering Journeys’ | * Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. * Recognise the place value or each digit in a three-digit number * Compare and order numbers up to 1000. * Read and write numbers up to 1000 in numerals and words. | * Count in multiples of 6,7 ,9, 25 and 1000; find 1000 more or less than a given number. * Recognise the place value of each digit in a four-digit number. * Count backwards through zero to include negative numbers. * Order and compare numbers beyond 1000. |
| 4 | Addition and subtraction – mental methods  LOGIC | To know bonds to 20 and 100.  To know how to add/subtract multiples of 10, 100 and three-digit numbers. | To know efficient methods for addition and subtraction up to and including four-digit numbers. | NCETM  Y3 +- 1.19 TP all  Y4 +-  White Rose  Y34 Autumn Block 1 Theme 1  PS - NRICH ‘Medals Count’  ‘Medal Muddle’  ‘Consecutive Numbers’ | Add and subtract numbers mentally, including:   * A three-digit number and ones * A three-digit number and tens * A three-digit number and hundreds   Solve problems including missing number problems, using number facts and place value | Pupils continue to practise mental methods strategies from Year 3? |
| 5 | Addition – written formal methods  LOGIC | To know how to calculate with columnar methods. | To know how to add and subtract using standard written algorithms including in the context of money. | NCETM  Y3 +- 1.20 TP all  Y4 +-  White Rose  Y34 Autumn Block 1 Theme 2 | * Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. * Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction. | * Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. * Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. |
| 6 & 7 GH | Subtraction – written subtraction  LOGIC | To know how to calculate with columnar methods. | To know how to add and subtract using standard written algorithms including in the context of money. | NCETM  Y3 +- 1.21 TP all  Y4 +-  White Rose  Y34 Autumn Block 1 Theme 3 & 4  PS NRICH Y4 – ‘Fifteen Cards’  ‘Money Bags’  ‘Amy’s Dominoes’  ‘Sealed Solution’  ‘Roll these Dice’ | * Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. * Estimate the answer to a calculation and use inverse operations to check answers. * Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction. | * Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. * Estimate and use inverse operations to check answers to a calculation. * Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. |
| 8 KR | Multiplication and division – mental methods  PATTERNS and GENRERALSING | Use their knowledge of times tables to work out calculations of two digits by one digit mentally. | Use their knowledge of times tables to work out calculations mentally using, up to, 3 digit numbers. | Y3 x/ 2.7 TP 2,4,5  Y3 x/ 2.8 TP 3,5,6  Y4 x/ 2.10 TP All  WR Autumn Y34 x/ theme 3, 5  WR Spring Y34 x/ theme 1 | * Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. * Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods. | * Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers * Recognise and use factor pairs and commutativity in mental calculations |
| 9 & 10 KR | Time and Roman Numerals  PATTERNS and GENRERALSING | Tell the time to one minute intervals using analogue clocks with both standard numbers and roman numerals.  Recall seconds in a minute, days in a month and year. | Know how to read and write roman numerals to 100.  Tell the time on both analogue and digital clocks in both 12 hour and 24 hour format.  Accurately convert form hour to minutes. | WR Y34 Place Value Theme 1  WR Y34 Time Themes 1,2,3  PS – NRICH ‘Calendar Patterns’ | * Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. * Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight. * Know the number of seconds in a minute and the number of days in each month, year and leap year. | * Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. * Read, write and convert time between analogue and digital 12- and 24-hour clocks. * Convert between different units of measure [for example hour to minute]. |
| 11 KR | Geometry – properties of shape  PATTERNS and GENRERALSING | Recognise and draw 2-D and 3-D shapes and explain their properties. | Know the properties of geometric shapes and how these can be classified. | WR Y34 Shape Themes 3 & 4  PS – NRICH ‘Sticky Triangles’ | * Draw 2-D shapes and make 3-D shapes using modelling materials. | * Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. |
| 12 & 13 KR | Length and perimeter  (Y4 area)  PATTERNS and GENRERALSING | Understand units of measure. Accurately measure, compare and calculate using lengths to work out the perimeter. | Calculate the perimeter and area of squares as well as rectilinear shapes with different units. | Y4 x/ 2.16 TP All  WR Y34 Length Themes 1-4  PS – NRICH ‘Fitted’ | * Measure, compare, add and subtract lengths (m/cm/mm). * Measure the perimeter of simple 2D shapes. | * Convert between different units of measure [for example, kilometre to metre] * Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. * Find the area of rectilinear shapes by counting squares. |