

## Maths End Points

| YEAR 2                                      |  |
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| AUTUMN TERM- 30                             |  |
| Number and place value                      | <ul style="list-style-type: none"> <li>-Count in steps of 2 and 5 from 0, and in tens from any number, forward and backward.</li> <li>-Begin to compare and order numbers from 0 to 100 using <math>&lt;</math>, <math>&gt;</math> and <math>=</math> signs, and work systematically to find all possible inequalities.</li> <li>-Locate and place 1- and 2-digit numbers on a beaded and landmarked line and a 1-100 square.</li> <li>-Begin to recognise the place value of each digit in a 2-digit number and find and record all possible amounts using a given number of 10p and 1p coins.</li> </ul>   |
| Addition and Subtraction                    | <ul style="list-style-type: none"> <li>- Know all the pairs of numbers which make the numbers up to 10.</li> <li>-Begin to understand the inverse relationship between addition and subtraction.</li> <li>-Solve problems with addition and subtraction applying their increasing knowledge of mental and written methods.</li> <li>-Say all bonds to 10 and know them by heart.</li> <li>-Use number facts to solve related subtractions</li> <li>-Begin to write word problems and relate known number bonds to context-based problems.</li> <li>-Recognise and work out multiple of 10 bonds to 100, using bonds to 10.</li> <li>-Show that addition of two numbers can be done in any order (commutative).</li> <li>-Recall and use addition and subtraction facts to 20 fluently.</li> <li>-Use number facts to solve related additions and begin to think and record systematically.</li> <li>-Add and subtract mentally a 2-digit number and tens, including adding or subtracting 10 to and from any number up to 100 (positive answers only).</li> <li>-Solve problems with addition and subtraction using concrete objects and pictorial representations.</li> <li>-Begin to add and subtract two 2-digit numbers by counting on or back in 10s and 1s.</li> </ul> |
| Multiplication and Division                 | <ul style="list-style-type: none"> <li>-Begin to find doubles and near doubles of numbers to 15.</li> <li>-Count in 2s, 5s and 10s from 0 to learn multiples of 2, 5 and 10.</li> </ul>  |
| Fractions, Decimals, Ratios and Percentages |  |
| Measures                                    | <ul style="list-style-type: none"> <li>-Understand the need for a standard unit.</li> <li>-Begin to know whether to measure in cm or m.</li> <li>-Begin to estimate and measure in cm.</li> <li>-Begin to estimate and measure in m.</li> <li>-Combine amounts to make a particular value up to £1.00.</li> <li>-Find different combinations of coins that equal the same amounts of money up to £1.00.</li> </ul>   |
| Geometry                                    | <ul style="list-style-type: none"> <li>-Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line.</li> <li>-Compare and sort common 2D shapes and everyday objects.</li> <li>-Use mathematical vocabulary to describe position, direction and movement including movement in a straight line.</li> <li>-Distinguish between rotation as a turn and in terms of right angles for quarter, half and three quarter turns (clockwise and anticlockwise).</li> </ul>   |
| Statistics                                  | <ul style="list-style-type: none"> <li>-Sort objects using Venn diagrams and two-way Carroll diagrams and understand the overlap in a Venn diagram.</li> </ul>   |

## Year 2

### SPRING TERM- 35

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| <b>Number and place value</b>                      | <ul style="list-style-type: none"><li>-Estimate a quantity, less than 100, within given ranges.</li><li>-Locate and place 2-digit numbers on a landmark line and a 1-100 square and use this knowledge to compare and order numbers.</li><li>-Recognise the place value of each digit in a 2-digit number.</li><li>-Round 2-digit numbers to the nearest 10.</li></ul>  |
| <b>Addition and Subtraction</b>                    | <ul style="list-style-type: none"><li>-Use bonds to 10 and 20 to subtract from 10 and 20.</li><li>-Solve missing number problems involving the inverse relationship between addition and subtraction.</li><li>-Add numbers using concrete objects and pictorial representations, e.g. number lines, to add 1- and 2-digit numbers.</li><li>-Add mentally two 2-digit numbers by counting on in 10s and 1s.</li><li>-Add and subtract 10 in order to add or subtract 9 or 11 to and from a 2-digit number.</li><li>-Use place value and number facts to solve problems, for example using bonds to 10 to find complements to the next multiple of 10.</li></ul>  |
| <b>Multiplication and Division</b>                 | <ul style="list-style-type: none"><li>-Double numbers to double 15 and find related halves.</li><li>-Recognise odd and even numbers.</li><li>-Begin to know the 2, 5 and 10 times tables and investigate multiplications with the same answer.</li><li>-Calculate mathematical statements for multiplication within the multiplication tables, to go with hops on number lines and with arrays, and write them using the multiplication (<math>\times</math>), division (<math>\div</math>) and equals (=) signs.</li><li>-Arrange objects into arrays, write the corresponding multiplication and investigate all possible arrays for a given number of cubes.</li><li>-Begin to write divisions as multiplications with a missing number.</li><li>-Understand division as grouping.</li><li>-Solve problems involving multiples of 2, 5 and 10 in a practical context, using coins and objects.</li></ul> |
| <b>Fractions, Decimals, Ratios and Percentages</b> | <ul style="list-style-type: none"><li>-Understand mixed numbers and place halves on a number line.</li><li>-Recognise, find, name and write fractions <math>\frac{1}{3}</math> and <math>\frac{2}{3}</math> of a shape.</li><li>-Recognise, find, name and write fractions <math>\frac{1}{4}</math> and <math>\frac{2}{4}</math> (<math>\frac{1}{2}</math>) of a shape.</li><li>-Recognise, find, name and write fractions <math>\frac{2}{4}</math> (<math>\frac{1}{2}</math>) of a set of objects or quantity, including finding half of odd numbers.</li><li>-Count in steps of <math>\frac{1}{2}</math> and a <math>\frac{1}{4}</math>.</li></ul>  |
| <b>Measures</b>                                    | <ul style="list-style-type: none"><li>-Find change from 10p and 20p, £10 and £20, by counting up in ones and knowing bonds to 10 and 20.</li><li>-Tell and write the time quarter past/to the hour on analogue and digital clocks and draw the hands on a clock face to show these analogue times.</li><li>-Know units of time: minutes, hours, days, weeks, months and years.</li><li>-Know the relationship between seconds and minutes and minutes and hours, including the number of minutes in an hour and the number of hours in a day.</li><li>-Recognise and use symbols for pounds (£) and pence (p) with no zeros in the 10p place and use coins to solve simple problems involving addition.</li><li>-Recognise and know the values of all coins and notes up to £20.</li><li>-Find all possible amounts using three coins (1p-£2).</li></ul>  |
| <b>Geometry</b>                                    | <ul style="list-style-type: none"><li>-Identify and describe the properties of 3D shapes including the number of edges, vertices and faces.</li></ul>   |

- Identify 2D shapes on the surface of 3D shapes; for example, a circle on a cylinder and a triangle on a pyramid.
- Compare and sort common 3D shapes and everyday objects.
- Order and arrange combinations of mathematical objects, including 2D and 3D shapes, in repeating patterns and sequences.

**Statistics**

- Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.

## Year 2

### SUMMER TERM- 39

#### Number and place value

- Identify, represent and estimate numbers using different representations, including the number line; beginning to move beyond 100.
- Compare and order numbers from 0 up to 100; use  $<$ ,  $>$  and  $=$  signs.
- Use place value and number facts to solve problems.
- Count in steps of 3 from 0, forward and backward.
- Begin to see that when counting from 100–200, the numbers replicate the pattern from 0–100.
- Begin to recognise the place value of each digit in a 3-digit number.
- Read and write numbers to at least 100 in numerals and in words.

#### Addition and Subtraction

- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
- Subtract mentally two 2-digit numbers, including working out small differences between two 2-digit numbers using knowledge of complements to 10 and place value.
- Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving quantities and measures.
- Subtract numbers using concrete objects and pictorial representations, e.g. number lines, to subtract 1- and 2-digit numbers (positive answers only).
- Add mentally a 2-digit number and ones, including adding any 1-digit number to a 2-digit number using number facts or bridging 10.
- Subtract mentally a 2-digit number and ones, including subtracting any 1-digit number from a 2-digit number using number facts or bridging 10.
- Add mentally two 2-digit numbers, using partitioning and number facts.
- Subtract mentally two 2-digit numbers, including subtracting one 2-digit number from another by counting back in 10s and 1s, not crossing 10s.
- Add mentally three 1-digit numbers, using known number facts and doubles.
- Understand subtraction as difference and find this by adding to the next multiple of 10, using bonds to 10.
- Use addition and subtraction and number bonds to 10 and 20 to solve problems in number stories.
- Derive and use related facts up to 100.

#### Multiplication and Division

- Recall and use multiplication and division facts for the 2, 5, and 10 times-tables.
- Calculate mathematical statements for multiplication and division within the multiplication tables, to go with hops on number lines and with arrays, and write them using the multiplication ( $\times$ ), division ( $\div$ ) and equals ( $=$ ) signs.
- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
- Solve problems involving multiplication and division using materials, arrays, repeated addition, 'clever counting', mental methods and multiplication and division facts, including problems in contexts.
- Solve missing number multiplications by counting up in steps.
- Double and halve multiples of 10 and 5 and 2-digit numbers ending in 1, 2, 3 or 4, answers less than 100.
- Count in 3s, multiply and divide by 3 using arrays, representations and concrete objects, and begin to know the 3 times table.

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|  | <ul style="list-style-type: none"> <li>-Use mathematical reasoning to identify and explain patterns and use these to predict answers.</li> <li>-Understand that division and multiplication are inverse operations.</li> </ul>  |
| <b>Fractions, Decimals, Ratios and Percentages</b> | <ul style="list-style-type: none"> <li>-Recognise, find, name and write fractions <math>\frac{1}{4}</math> and <math>\frac{2}{4}</math> (<math>\frac{1}{2}</math>), and begin to recognise, find, name and write <math>\frac{1}{3}</math> and <math>\frac{3}{4}</math>, of a set of objects or quantity.</li> <li>-Write simple fractions.</li> <li>-Recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math>.</li> <li>-Find a quarter of numbers, up to 40, by halving twice.</li> </ul>  |
| <b>Measures</b>                                    | <ul style="list-style-type: none"> <li>-Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass/weight (kg/g); temperature (<math>^{\circ}</math>C); capacity (l/ml) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels.</li> <li>-Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.</li> <li>-Recognise and use symbols for pounds (£) and pence (p) and find more than one way to solve a money problem (£1, 10p and 1p coins).</li> <li>-Compare and order lengths, mass and capacities and record the results using <math>&gt;</math>, <math>&lt;</math> and <math>=</math>.</li> <li>-Tell and write the time to 5 minutes past the hour on analogue and digital clocks and draw the hands on a clock face to show these analogue times.</li> <li>-Tell and write the time to 5 minutes to the hour on analogue and digital clocks and draw the hands on a clock face to show these analogue times.</li> <li>-Find the time 10 minutes later; use 10 minutes as an interval of time; begin to compare and sequence intervals of time.</li> </ul> |
| <b>Geometry</b>                                    |   |
| <b>Statistics</b>                                  | <ul style="list-style-type: none"> <li>-Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity, and ask and answer questions about totalling and comparing categorical data.</li> </ul>  |