|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Happiness Responsibility Friendship Respect Courage** | | | | |
| **Maths – Year 4** | | | | |
| **AUTUMN TERM** | | | | |
|  | **Starter focus** | **Planning and teaching sequence** | **Assessment and Home learning** | **National Curriculum End of Year expectation** |
| **Place Value -** 17 lessons | **Flashback 4** – daily  **Revisit**:  **Written method** addition HTU +TU with and without carried digits  **Statistics** interpret data presented in bar charts, pictograms or tables.  **Counting** in 50s  **1, 10, 100** more or less | Represent numbers to 1,000 | Number Sense continual assessment of tables.  Time homework | To count in multiples of 6, 7, 9, 25 and 1000  To count backwards through zero to include negative numbers (introduced in Year 5)  To identify, represent and estimate numbers using different representations  To 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.  To find 1000 more or less than a given number  To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)  To order and compare numbers beyond 1000  To round any number to the nearest 10, 100 or 1000  To solve number and practical problems that involve all of the above and with increasingly large positive numbers |
| Partition numbers to 1,000 |
| Number line to 1,000 |
| Thousands |
| **Flashback 4** – daily  **Revisit**:  **Written method** subtraction HTU – TU with and without exchange  **Fractions** – adding and subtracting fractions with the same denominator.  **Shape** – identifying right angles.  **Addition** - Complements to 100 | Represent numbers to 10,000 |
| Partition numbers to 10,000 |
| Flexible partitioning of numbers to 10,000 |
| Find 1, 10, 100, 1,000 more or less |
| **Flashback 4** – daily  **Revisit**:  **Written method** multiplication TU x U  **Geometry** – identifying vertical and horizontal lines of symmetry in simple shapes.  **Fractions** – Counting in tenths.  **Number** – flexible partitioning to 10,000 | Number line to 10,000 |
| Estimate on a number line to 10,000 |
| Compare numbers to 10,000 |
| Order numbers to 10,000 |
| **Flashback 4** – daily  **Revisit**:  **Written method** division – known facts within the short division layout.  **Fractions** – finding halves and quarters of number.  **Addition** - Complements to 100  **Number** – comparing and ordering to 10,000 | Roman numerals to 20 (additive) |
| Roman numerals to 100 (additive) |
| Roman numerals to 100 (subtractive) |
| Roman numerals to 100 |
| **Flashback 4** – daily  **Revisit**:  **Written method** addition HTU +TU with and without carried digits  **Roman numerals** to 100  **Statistics** interpret data presented in bar charts, pictograms or tables. | Round to the nearest 10 |
| Round to the nearest 100 |
| Round to the nearest 10, 100 or 1,000 |
|  | | | | |
| **Addition and Subtraction -** 10 lessons | **Flashback 4** – daily  **Revisit**:  **Written method** subtraction HTU – TU with and without exchange  **Round** to the nearest 10, 100, 1000  **Fractions** – adding and subtracting fractions with the same denominator.  **Shape** – identifying right angles and acute angles. | Add and subtract 1s, 10s, 100s and 1,000s |  |  |
| Add up to two 4-digit numbers – no exchange |
| Add two 4-digit numbers – one exchange |
| Add two 4-digit numbers – more than one exchange |
| **Flashback 4** – daily  **Revisit**:  **Written method** multiplication TU x U  **Roman numerals** to 100  **Fractions** – finding halves and quarters of number.  **Number** – adding 1s, 10s and 100s across boundaries. | Subtract two 4-digit numbers – no exchange |
| Subtract two 4-digit numbers – one exchange |
| Subtract two 4-digit numbers – more than one exchange |
| Efficient subtraction |
| **Flashback 4** – daily  **Revisit**:  **Written method** division – known facts within the short division layout.  **Number** - efficient subtraction  **Round** to the nearest 10, 100, 1000 | Estimate answers |
| Checking strategies |
|  | | | | |
| **Area -** 4 lessons |  | What is area? |  | To find the area of rectilinear shapes by counting squares |
| Count squares |
| **Flashback 4** – daily  **Revisit**:  **Written method** addition ThHTU +ThHTU with and without carried digits  **Roman numerals** to 100  **Statistics** interpret data presented in bar charts, pictograms or tables.  **Measures** – m/cm conversion | Make shapes |
| Compare area |
|  | | | | |  |
| **Multiplication and Division A -** 13 lessons |  | Multiples of 3 |  | To recall multiplication and division facts for multiplication tables up to 12 × 12  To 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 |
| Multiply and divide by 6 |
| **Flashback 4** – daily  **Revisit**:  **Written method** subtraction ThHTU – ThHTU with and without exchange  **Round** to the nearest 10, 100, 1000  **Fractions** – adding and subtracting fractions with the same denominator.  **Shape** – identifying right angles, acute and obtuse angles. | 6 times-table and division facts |
| Multiply and divide by 9 |
| 9 times-table and division facts |
| The 3, 6 and 9 times-tables |
| **Flashback 4** – daily  **Revisit**:  **Written method** multiplication TU x U  **Geometry** – identifying vertical and horizontal lines of symmetry in simple shapes.  **Area –** finding the area of shapes.  **Number** – adding 1s, 10s and 100s across boundaries. | Multiply and divide by 7 |
| 7 times-table and division facts |
| 11 times-table and division facts |
| 12 times-table and division facts |
| **Flashback 4** – daily  **Revisit**:  **Written method** division – known facts within the short division layout.  **Round** to the nearest 10, 100, 1000  **Divide** a number by 1 and itself. | Multiply by 1 and 0 |
| Divide a number by 1 and itself |
| Multiply three numbers |
| **SPRING TERM** | | | | |
| **Multiplication and Division B -** 15 lessons | **Flashback 4** – daily  **Revisit**:  **Written method** addition ThHTU +ThHTU with and without carried digits  **Roman numerals** to 100  **Statistics** interpret data presented in bar charts, pictograms or tables.  **Measures** – cm/mm conversion | Factor pairs | Weekly times table Soundcheck  Time homework | To recognise and use factor pairs and commutativity in mental calculations  To multiply two-digit and three-digit numbers by a one-digit number using formal written layout  To solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects |
| Use factor pairs |
| Multiply by 10 |
| Multiply by 100 |
| **Flashback 4** – daily  **Revisit**:  **Written method** subtraction ThHTU – ThHTU with and without exchange  **Round** to the nearest 10, 100, 1000  **Fractions** – adding and subtracting fractions with the same denominator.  **Addition** - Complements to 100 | Divide by 10 |
| Divide by 100 |
| Related facts – multiplication and division |
| Informal written methods for multiplication |
| **Flashback 4** – daily  **Revisit**:  **Written method** multiplication HTU x U  **Area –** finding the area of shapes.  **Number** – multiplying by 1 and 0  **Number** – multiplying and dividing by 10 or 100. | Multiply a 2-digit number by a 1-digit number |
| Multiply a 3-digit number by a 1-digit number |
| Divide a 2-digit number by a 1-digit number (1) |
| Divide a 2-digit number by a 1-digit number (2) |
| **Flashback 4** – daily  **Revisit**:  **Written method** division – known facts within the short division layout.  **Number** – multiplying 3 numbers.  **Number** – factor pairs  **Number** – adding 1s, 10s and 100s across boundaries. | Divide a 3-digit number by a 1-digit number |
| Correspondence problems |
| Efficient multiplication |
|  | | | | |  | |
| **Length and Perimeter -** 9 lessons |  | Measure in kilometres and metres |  | To convert between different units of measure [for example, kilometre to metre; hour to minute]  To estimate, compare and calculate different measures  To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres |
| **Flashback 4** – daily  **Revisit**:  **Written method** addition ThHTU +ThHTU with and without carried digits  **Roman numerals** to 100  **Statistics** interpret data presented in bar charts, pictograms or tables.  **Measures** – kg/g conversion | Equivalent lengths (kilometres and metres) |
| Perimeter on a grid |
| Perimeter of a rectangle |
| Perimeter of rectilinear shapes |
| **Flashback 4** – daily  **Revisit**:  **Written method** subtraction ThHTU – ThHTU with and without exchange  **Round** to the nearest 10, 100, 1000  **Fractions** – adding and subtracting fractions with the same denominator.  **Shape** – identifying right angles, acute and obtuse angles. | Find missing lengths in rectilinear shapes |
| Calculate perimeter of rectilinear shapes |
| Perimeter of regular polygons |
| Perimeter of polygons |
|  | | | | |
| **Fractions -** 15 lessons | **Flashback 4** – daily  **Revisit**:  **Written method** multiplication HTU x U  **Geometry** – identifying vertical and horizontal lines of symmetry in simple shapes.  **Perimeter** – calculating the perimeter of rectilinear shapes.  **Number** – multiplying by 1 and 0 | Understand the whole |  | To count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.  To recognise and show, using diagrams, families of common equivalent fractions  To add and subtract fractions with the same denominator  To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number  To solve simple measure and money problems involving fractions and decimals to two decimal places |
| Count beyond 1 |
| Partition a mixed number |
| Number lines with mixed numbers |
| **Flashback 4** – daily  **Revisit**:  **Written method** division – known facts within the short division layout.  **Number** – multiplying 3 numbers.  **Number** – multiplying and dividing by 10 or 100.  **Number** – factor pairs | Compare and order mixed numbers |
| Understand improper fractions |
| Convert mixed numbers to improper fractions |
| Convert improper fractions to mixed numbers |
| **Flashback 4** – daily  **Revisit**:  **Written method** addition ThHTU +ThHTU with and without carried digits  **Roman numerals** to 100  **Statistics** interpret data presented in bar charts, pictograms or tables.  **Measures** – l/ml conversion | Equivalent fractions on a number line |
| Equivalent fraction families |
| Add two or more fractions |
| Add fractions and mixed numbers |
| **Flashback 4** – daily  **Revisit**:  **Written method** subtraction ThHTU – ThHTU with and without exchange  **Round** to the nearest 10, 100, 1000  **Fractions** – counting beyond 1 in fractions.  **Addition** - Complements to 100 | Subtract two fractions |
| Subtract from whole amounts |
| Subtract from mixed numbers |
|  | | | | |
| **Decimals A -** 10 lessons |  | Tenths as fractions |  | To recognise and write decimal equivalents of any number of tenths or hundredths  To solve simple measure and money problems involving fractions and decimals to two decimal places |
| **Flashback 4** – daily  **Revisit**:  **Written method** multiplication HTU x U  **Fractions** – adding to make the whole.  **Area –** finding the area of shapes.  **Number** – multiplying and dividing by 10 or 100. | Tenths as decimals |
| Tenths on a place value chart |
| Tenths on a number line |
| Divide a 1-digit number by 10 |
| **Flashback 4** – daily  **Revisit**:  **Written method** division – known facts within the short division layout.  **Fractions** – writing improper fractions and mixed numbers from images.  **Number** – multiplying 3 numbers.  **Number** – factor pairs | Divide a 2-digit number by 10 |
| Hundredths as fractions |
| Hundredths as decimals |
| Hundredths on a place value chart |
|  | Divide a 1- or 2-digit number by 100 |
| **SUMMER TERM** | | | | |
| **Decimals B -** 8 lessons | **Flashback 4** – daily  **Revisit**:  **Written method** addition ThHTU +ThHTU with and without carried digits  **Roman numerals** to 100  **Statistics** interpret data presented in bar charts, pictograms or tables.  **Measures** – m/cm conversion | Make a whole with tenths | Daily Soundcheck  Time homework | To recognise and write decimal equivalents to 1/2, ¼, 3/4.  To round decimals with one decimal place to the nearest whole number  To compare numbers with the same number of decimal places up to two decimal places  To solve simple measure and money problems involving fractions and decimals to two decimal places |
| Make a whole with hundredths |
| Partition decimals |
| Flexibly partition decimals |
| **Flashback 4** – daily  **Revisit**:  **Written method** subtraction ThHTU – ThHTU with and without exchange  **Round** to the nearest 10, 100, 1000  **Fractions** – adding more than 2 fractions with the same denominator.  **Shape** – identifying right angles, acute and obtuse angles. | Compare decimals |
| Order decimals |
| Round to the nearest whole number |
| Halves and quarters as decimal |
|  | | | | |
| **Money -** 6 lessons | **Flashback 4** – daily  **Revisit**:  **Written method** multiplication HTU x U  **Fractions** – subtracting from the whole (with images).  **Geometry** – identifying vertical and horizontal lines of symmetry in simple shapes.  **Perimeter** – finding the perimeter of rectilinear shapes. | Write money using decimals |  | To estimate, compare and calculate different measures, including money in pounds and pence  To solve simple measure and money problems involving fractions and decimals to two decimal places |
| Convert between pounds and pence |
| Compare amounts of money |
| Estimate with money |
| **Flashback 4** – daily  **Revisit**:  **Written method** division – known facts within the short division layout.  **Number** – multiplying 3 numbers.  **Number** – multiplying and dividing by 10 or 100.  **Decimals** – compare and order | Calculate with money |
| Solve problems with money |
|  | | | | |
| **Time -** 5 lessons |  | Years, months, weeks and days |  | To convert between different units of measure [for example, kilometre to metre; hour to minute]  To estimate, compare and calculate different measures  To read, write and convert time between analogue and digital 12- and 24-hour clocks  To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days |
| Hours, minutes and seconds |
| **Flashback 4** – daily  **Revisit**:  **Written method** addition ThHTU +ThHTU with and without carried digits (money)  **Roman numerals** to 100  **Statistics** interpret data presented in bar charts, pictograms or tables. | Convert between analogue and digital times |
| Convert to the 24-hour clock |
| Convert from the 24-hour clock |
|  | | | | |
| **Shape -** 8 lessons | **Flashback 4** – daily  **Revisit**:  **Written method** subtraction ThHTU – ThHTU with and without exchange (money)  **Round** to the nearest 10, 100, 1000  **Decimals** – round to the nearest whole number  **Decimals** – decimal halves and quarters | Understand angles as turns |  | To identify acute and obtuse angles and compare and order angles up to two right angles by size  To identify lines of symmetry in 2-D shapes presented in different orientations  To complete a simple symmetric figure with respect to a specific line of symmetry  To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes  To identify lines of symmetry in 2-D shapes presented in different orientations |
| Identify angles |
| Compare and order angles |
| Triangles |
| **Flashback 4** – daily  **Revisit**:  **Written method** multiplication HTU x U  **Area/Perimeter –** finding the area and perimeter of shapes.  **Number** – multiplying by 1 and 0  **Decimals** – round to the nearest whole number | Quadrilaterals |
| Polygons |
| Lines of symmetry |
| Complete a symmetric figure |
|  | | | | |
| **Statistics -** 4 lessons | **Flashback 4** – daily  **Revisit**:  **Written method** division – known facts within the short division layout.  **Geometry** – complete a symmetric figure  **Number** – multiplying 3 numbers.  **Number** – multiplying and dividing by 10 or 100. | Interpret charts |  | To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs  To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs |
| Comparison, sum and difference |
| Interpret line graphs |
| Draw line graphs |
|  | | | | |
| **Geometry – Position and direction -**5 lessons | **Flashback 4** – daily  **Revisit**:  **Written method** addition ThHTU +ThHTU with and without carried digits (money)  **Geometry** – complete a symmetric figure **Statistics** interpret data presented in bar charts, pictograms or tables.  **Measures** – mm/cm conversion | Describe position using coordinates |  | To describe positions on a 2-D grid as coordinates in the first quadrant  To describe movements between positions as translations of a given unit to the left/right and up/down  To plot specified points and draw sides to complete a given polygon |
| Plot coordinates |
| Draw 2-D shapes on a grid |
| Translate on a grid |
| Describe translation on a grid |