Year 5 Autumn Term

|  | Week 1-4 <br> Block 1 | Week 5-7 Block 2 | $\begin{aligned} & \text { Week 8-10 } \\ & \text { Block } 3 \end{aligned}$ | Week 11-12 Block 4 |
| :---: | :---: | :---: | :---: | :---: |
|  | Place value | Addition and subtraction | Multiplication and division | Multiplication and division |
| Small Steps | - Number to 10,000 . <br> - Roman numerals to 1,000 . <br> - Round to the nearest 10,100 and 1000 . Number to 100,000. <br> - Compare and order numbers to 100,000 . <br> - Round numbers within 100,000 <br> - Numbers to a million. <br> - Counting in $10 \mathrm{~s}, 100 \mathrm{~s}, 1,000 \mathrm{~s}, 10,000$ s and $100,000 \mathrm{~s}$. <br> - Compare and order numbers to a million. <br> - Round numbers to a million. - Negative numbers. | - Add whole numbers with more than 4digits (column method). <br> - Subtract whole numbers with more than 4-digits (column method). <br> - Round to estimate and approximate. <br> - Inverse operations (addition and subtraction). <br> - Multi-step addition and subtraction problems | - Multiples. <br> - Factors. <br> - Common factors. <br> - Prime numbers. <br> - Square numbers. <br> - Cube numbers. <br> - Multiplying by 10,100 and 1000 . <br> - Dividing by 10,100 and 1000 . <br> - Multiples of 10,100 and 1000 . | - Multiply 4 -digits by 1 -digit. <br> - Multiply 2-digits (area model). <br> - Multiply 2-digits by 2 -digits. <br> - Multiply 3 -digits by 2 -digits. <br> - Multiply 4 -digits by 2 -digits. <br> - Divide 4 -digits by 1 -digit. <br> - Divide with remainders |
| National curriculum links | - Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. <br> - Count forwards or backwards in steps of powers of 10 for any given number up to 1000000 . <br> - Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero. <br> - Round any number up to 1000000 to the nearest 10 , $100,1000,10000$ and 100000. <br> - Solve number problems and practical problems that involve all of the above. <br> - Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. | - Add and subtract numbers mentally with increasingly large numbers <br> - Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). <br> - Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. <br> - Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. | - Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers. - Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. - Establish whether a number up to 100 is prime and recall prime numbers up to 19 . Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers. - Multiply and divide numbers mentally, drawing upon known facts. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context. Multiply and divide whole numbers and those involving decimals by 10,100 and 1,000 . Recognise and use square numbers and cube numbers, and the notation for squared ( ${ }^{2}$ ) and cubed ( ${ }^{3}$ ). • Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes. • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. - Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. | - Multiply and divide numbers mentally drawing upon known facts. - Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for 2 digit numbers. - Divide numbers up to 4 digits by a one digit number using the formal written method of short division and interpret remainders appropriately for the context. - Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign. |

Year 5 Spring Term

|  | Week 1-4 <br> Block 1 | Week 5-8 Block 2 | $\begin{aligned} & \text { Week 9-10 } \\ & \text { Block } 3 \end{aligned}$ | Week 11-12 |
| :---: | :---: | :---: | :---: | :---: |
|  | Fractions | Decimals and percentages | Statistics | Area and perimeter |
| Small Steps | - Equivalent fractions. <br> - Improper fractions to mixed numbers. <br> - Mixed numbers to improper fractions. <br> - Number sequences. <br> - Compare and order fractions less than 1. - <br> Compare and order fractions greater than 1. <br> - Add and subtract fractions. <br> - Add fractions within 1. <br> - Add 3 or more fractions. <br> - Add fractions. <br> - Add mixed numbers. <br> - Subtract fractions. <br> - Subtract mixed numbers. <br> - Subtract - breaking the whole. <br> - Subtract 2 mixed numbers. <br> - Multiply unit fractions by an integer <br> - Multiply non-unit fractions by an integer. <br> - Multiply mixed numbers by integers. <br> - Fraction of an amount. <br> - Using fractions as operators. | - Decimals up to 2 d.p. <br> - Decimals as fractions (1). <br> - Decimals as fractions (2). <br> - Understand thousandths. <br> - Thousands as decimals. <br> - Rounding decimals. <br> - Order and compare decimals. <br> - Understand percentages. <br> - Percentages as fractions and decimals. <br> - Equivalent F.D.P. | - Read and interpret line graphs. <br> - Draw line graphs. <br> - Use line graphs to solve problems. <br> - Read and interpret tables. <br> - Two way tables. <br> - Timetables. | - Measure perimeter. <br> - Calculate perimeter. <br> - Area of rectangles. <br> - Area of compound shapes. <br> - Area of irregular shapes. |
| National curriculum links | - Compare and order fractions whose denominators are multiples of the same number. - Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. - Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $>1$ as a mixed number [for example $2 / 5+4 / 5=6 / 5=11 /]$ ] • Add and subtract fractions with the same denominator and denominators that are multiples of the same number. $\bullet$ Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. - Read and write decimal numbers as fractions [ for example $0.71=71 / 100$ ]. $\cdot$ Solve problems involving multiplication and division, including scaling by simple fractions and problems | - Read, write, order and compare numbers with up to three decimal places. - Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. - Round decimals with two decimal places to the nearest whole number and to one decimal place. • Solve problems involving number up to three decimal places. - Recognise the per cent symbol (\%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal. - Solve problems which require knowing percentage and decimal equivalents of $1 / 2,1 / 4$, $1 / 5,2 / 5,4 / 5$ and those fractions with a denominator of a multiple of 10 or 25 . | - Solve comparison, sum and difference problems using information presented in a line graph. <br> - Complete, read and interpret information in tables including timetables. | - Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. <br> - Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres $\left(\mathrm{cm}^{2}\right)$ and square metres $\left(\mathrm{m}^{2}\right)$, and estimate the area of irregular shapes. |


|  | Week 1-4 Block 1 | Week 4-8 Block 2 | Week 9-11 Block 3 | Consolidation |
| :---: | :---: | :---: | :---: | :---: |
|  | Decimals | Geometry | Measures | All |
| Small Steps | - Adding decimals within 1. <br> - Subtracting decimals within 1. <br> - Complements to 1. <br> - Adding decimals - crossing the whole. <br> - Adding decimals with the same number of decimal places. <br> - Subtracting decimals with the same number of decimal places. <br> - Adding decimals with a different number of decimal places. <br> - Subtracting decimals with a different number of decimal places. <br> - Adding and subtracting whole and decimals. <br> - Decimal sequences. <br> - Multiplying decimals by 10,100 and 1000 . <br> - Dividing decimals by 10,100 and 1,000 . | - Measuring angles in degrees. <br> - Measuring with a protractor (1). <br> - Measuring with a protractor (2). <br> - Drawing lines and angles accurately. <br> - Calculating angles on a straight line. <br> - Calculating angles around a point. <br> - Calculating lengths and angles in shapes. <br> - Regular and irregular polygons. <br> - Reasoning about 3D shapes. <br> - Position in the first quadrant. <br> - Reflection. <br> - Reflection with coordinates. <br> - Translation. <br> - Translation with coordinates. | - Kilograms and kilometres. <br> - Milligrams and millilitres. <br> - Metric units. <br> - Imperial units. <br> - Converting units of time. <br> - Timetable• What is volume? <br> - Compare volume. <br> - Estimate volume. <br> - Estimate capacity. | All |
| $\begin{gathered} \text { National } \\ \text { curriculum links } \end{gathered}$ | - Solve problems involving number up to three decimal places. <br> - Multiply and divide whole numbers and those involving decimals by 10,100 and 1000 . <br> - Use all four operations to solve problems involving measure [ for example, length, mass, volume, money] using decimal notation, including scaling. | - Identify 3D shapes, including cubes and other cuboids, from 2 D representations. <br> - Use the properties of rectangles to deduce related facts and find missing lengths and angles. <br> - Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. <br> - Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. <br> - Draw given angles, and measure them in degrees <br> - Identify: angles at a point and one whole turn (total $360^{\circ}$ ), angles at a point on a straight line and $1 / 2$ a turn (total $180^{\circ}$ ) other multiples of $90^{\circ}$. <br> - Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. | - Convert between different units of metric measure [for example, km and $\mathrm{m} ; \mathrm{cm}$ and $\mathrm{m} ; \mathrm{cm}$ and $\mathrm{mm} ; \mathrm{g}$ and kg ; I and ml ]. <br> - Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. <br> - Solve problems involving converting between units of time. <br> - Estimate volume [for example using 1 cm 3 blocks to build cuboids <br> - (including cubes)] and capacity [for $\bullet$ example, using water]. <br> - Use all four operations to solve problems involving measure. |  |

Ideas for revisiting skills
Although we have put our units into blocks, we need to revisit skills taught throughout the year. This can be done in a variety of ways including:

- Cold maths
- Arithmetic papers
- The power of three
- Maths mats
- Four rules Friday
- Consolidation weeks

