

Mathematics

## Long Term Plan

## Year 4

Updated June 2023
To be read in conjunction with the Calculation Policy

## S Year 4 Long Term Plan

|  | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 |
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| $\begin{aligned} & \frac{5}{E} \\ & \frac{1}{3} \\ & \frac{1}{3} \end{aligned}$ | NUMBER <br> Place Value |  |  |  | NUMBER <br> Addition and Subtraction Including explicit teaching of mental methods |  |  |  |  | NUMBER <br> Multiplication and Division A Including explicit teaching of mental methods <br> Maths Week England |  |  |  |
| $\begin{aligned} & \frac{9}{5} \\ & \frac{\pi}{0} \\ & \text { n } \end{aligned}$ |  | BER cation ision B nued | $\begin{aligned} & \text { MEAS } \\ & \text { Len } \\ & \text { Pet } \end{aligned}$ | REMENT <br> $h$ and neter |  |  |  |  |  | NUMBER Decimals A |  | $\begin{aligned} & \frac{y}{5} \\ & \frac{5}{5} \\ & \frac{5}{5} \end{aligned}$ |  |
| $\begin{aligned} & \stackrel{\Sigma}{む} \\ & \stackrel{1}{E} \\ & \frac{E}{J} \\ & \end{aligned}$ | $\underset{\text { Deci }}{\text { NU }}$ | $\begin{aligned} & \text { 3ER } \\ & \text { Is B } \end{aligned}$ |  |  | GEOM | $\begin{aligned} & \text { ETRY } \\ & \text { ape } \end{aligned}$ |  | PiXL Assessments |  | Consolidatio PiXL Anal Times Tab <br> My Mo | n of RTP' sis Focus les Focus <br> ney Maths |  |  |

Year 4 Medium Term Plan

| Autumn <br> Term | Weeks 1-4 | Weeks 5-7 | Week 8 | Week 9 | Weeks 10-12 <br> Maths Week England | Week 13 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Domain | Place Value | Addition and Subtraction |  | Area | Multiplication and Division A | Multiplication and Division B |
| NC Objective | $\star$ Identify, represent and estimate numbers using different representations <br> $\star$ Count in multiples of 6,7,9, 25 and 1,000 <br> $\star$ Recognise the place value of each digit in a 4digit number (thousands, hundreds, tens and ones) <br> * Find 1,000 more or less than a given number <br> $\star$ Order and compare numbers beyond 1,000 <br> $\star$ 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 <br> $\star$ Round any number to the nearest 10,100 or 1,000 <br> Ensure negative numbers are introduced in Year 4. <br> $\star$ Count backwards through zero to include negative numbers <br> Ensure coverage of: <br> $\star$ Solve number and practical problems that involve all of the above and with increasingly large positive numbers | * Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate <br> $\star$ Solve addition and subtraction twostep problems in contexts, deciding which operations and methods to use and why <br> $\star$ Estimate and use inverse operations to check answers to a calculation | Assessments | * Find the area of rectilinear shapes by counting squares | Maths Week England will be celebrated during this block with a set focus <br> * Recall multiplication and division facts for multiplication tables up to $12 \times 12$ <br> * Recognise and use factor pairs and commutativity in mental calculations <br> * 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 |
| Smaller <br> Steps <br> (WRM) |  |  | $\frac{\vec{x}}{\underline{x}}$ | Mmatseren |  |  |

4NPV-1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other fourdigit multiples of 100 .

- Step 4-Thousands
* 4NPV-2 Recognise the place value of each digit in four-digit numbers and compose and decompose four-digit numbers using standard and non-standard partitioning.
- Step 5-Represent numbers to 10,000
- Step 6-Partition numbers to 10,000
- Step 7-Flexible partitioning of numbers to 10,000
* 4NPV-3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each
- Step 8-Find 1, 10, 100, 1,000 more or less
- Step 9-Number line to 10,000
- Step 10-Estimate on a number line to 10,000
- Step 11-Compare numbers to 10,000
- Step 12-Order numbers to 10,000
- Step 14-Round to the nearest 10
- Step 15-Round to the nearest 100
- Step 16-Round to the nearest 1,000
- Step 17-Round to the nearest 10,000
* 4NPV-4 Divide 1,000 into 2,4,5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with $2,4,5$ and 10 equal parts.
Step 9-Number line to 10,000
- Step 10-Estimate on a number line to 10,000 up to $12 \times 12$ and recognise products in multiplication tables as multiples of the corresponding number.
- All 13 steps in this block relate to


## this criterion

4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.
-All 13 steps in this block relate to this criterion
4MD-2 Manipulate multiplication and division equations and understand and apply the commutative property of multiplication.

- All 13 steps in this block relate to this criterion

4NPV-1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100 apply this to identify and work out how many 100s there are in other four digit multiples of 100.

- Step 3-Multiply by 10
- Step 4-Multiply by 100 - Step 5-Divide by 10
$\star$ 4NF-1 Recall multiplication and division facts up to $12 \times$ 12 and recognise products in multiplication tables as multiples of the
corresponding number
- Step 1-Factor pairs
- Step 2-Use factor pairs * 4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)
- Step 4-Multiply by 100
* 4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.
- Step 3-Multiply by 10 - Step 4-Multiply by 100 - Step 5-Divide by 10

| Spring Term | Weeks 1-2 | Weeks 3-4 | Week 5 | Week 6 | Weeks 7-8 | Weeks 9-11 | Week 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Domain | Multiplication and Division B | Length and Perimeter | Fractions |  | Fractions continued | Decimals A | Statistics |
| NC <br> Objective | $\star$ Recognise and use factor pairs and commutativity in mental calculations <br> * Recall multiplication and division facts for multiplication tables up to $12 \times 12$ <br> * Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together 3 numbers <br> * Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout <br> * Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to mobjects | * Convert between different units of measure [for example, kilometre to metre; hour to minute] <br> * Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | * Recognise and show, using diagrams, families of common equivalent fractions <br> * Add and subtract fractions with the same denominator | iXL Assessments | * Recognise and show, using diagrams, families of common equivalent fractions <br> * Add and subtract fractions with the same denominator <br> $\star$ 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 <br> $\star$ Solve simple measure and money problems involving fractions and decimals to two decimal places. | * Recognise and write decimal equivalents of any number of tenths or hundredths <br> $\star$ Compare numbers with the same number of decimal places up to 2 decimal places <br> $\star$ Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths <br> $\star$ Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 <br> $\star$ Recognise and show, using diagrams, families of common equivalent fractions <br> $\star$ Recognise and write decimal equivalents to $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}$ <br> $\star$ Round decimals with one decimal place to the nearest whole number <br> $\star$ Solve simple measure and money problems involving fractions and decimals to two decimal places. | * Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. <br> $\star$ Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. |
| Smaller <br> Steps <br> (WRM) |  |  |  |  |  |  | 0 | identify and work out how many 100s

there are in other four-digit multiples of 100.

- Step 6-Divide by 100
* 4NF-1 Recall multiplication and division facts up to $12 \times 12$ and recognise products in multiplication tables as multiples of the corresponding number. - Step 7-Related facts -multiplication and division
- Step 8-Informal written methods for multiplication
- Step 9-Multiply a 2-digit number by a 1-digit number
- Step 10-Multiply a 3-digit number by a 1-digit number
* 4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately
according to the context
-Step 11-Divide a 2-digit number by a 1 -digit number (1)
- Step 12-Divide a 2-digit number by a 1 -digit number (2)
-Step 13-Divide a 3-digit number by a 1-digit number
* 4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)
- Step 6-Divide by 100
* 4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.


## - Step 6-Divide by 100

* 4MD-3 Understand and apply the
distributive property of multiplication.
- Step 8-Informal written methods for multiplication
- Step 9-Multiply a 2-digit number by a 1-digit number
- Step 10-Multiply a 3-digit number by a 1-digit number
- Step 4-Number lines with mixed numbers
-Step 5-Compare and order mixed numbers


## 4F-2 Convert mixed numbers improper fractions and vice improper fractions and vice

versa.

- Step 7-Convert mixed numbers to improper fractions - Step 8-Convert improper fractions to mixed numbers

Not a Year 4 objective but helps to prepare for Year 5 if introduced
now.
4F-3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. - Step 12-Add fractions and mixed numbers

- Step 14-Subtract from whole amounts
-Step 15-Subtract from mixed numbers

4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)

- Step 10-Divide a 1 -or 2-digit number by 100

Year 4 Medium Term Plan

| Summer <br> Term | Weeks 1-2 | Week 3 | Week 4 | Weeks 5-6 | Week 7 | Week 8 | Weeks 9-12 <br> My Money Maths |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Domain | Decimals B | Time | Money | Shape | Position and Direction |  | Consolidation of RTP's and Times Tables |
| NC Objective | * Recognise and write decimal equivalents of any number of tenths or hundredths <br> * Compare numbers with the same number of decimal places up to 2 decimal places <br> * Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 <br> * Recognise and write decimal equivalents to $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}$ <br> » Round decimals with one decimal place to the nearest whole number <br> * Solve simple measure and money problems involving fractions and decimals to two decimal places. | * Read, write and convert time between analogue and digital 12and 24-hour clocks <br> $\star$ Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. | * Convert between different units of measure [for example, kilometre to metre; hour to minute] <br> * Estimate, compare and calculate different measures, including money in pounds and pence | * Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes <br> * Identify acute and obtuse angles and compare and order angles up to two right angles by size <br> » Identify lines of symmetry in 2-D shapes presented in different orientations <br> * Complete a simple symmetric figure with respect to a specific line of symmetry. | * Describe positions on a 2-D grid as coordinates in the first quadrant <br> * Describe movements between positions as translations of a given unit to the left/right and up/down <br> * Plot specified points and draw sides to complete a given polygon. |  | This time is also used to consolidate: <br> $\star$ RTP's that need revisiting <br> * Areas of concern through the PiXL analysis <br> $\star$ Times Tables |
| Smaller Steps (WRM) |  |  | $\square=$ $0=$ $0=$ $0=$ |  | Describe postion using coordinates <br> Ploc coordinates <br> Drow 2. - sthopes on o grid <br> Translote on o grid <br> Describe transiotion on o gid |  |  |
| RTP's |  |  |  | * 4G-2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons <br> -Step 4-Triangles <br> -Step 5-Quadrilaterals <br> -Step 6-Polygons <br> * 46-3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry. <br> -Step 7-Lines of symmetry <br> -Step 8-Complete a symmetric figure | * 4G-1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. <br> -Step 3-Draw 2-D shapes on a grid -Step 4-Translate on a grid |  |  |

