St Oswald's Catholic Primary School - Progression Map 2023-2024

## Number: Fractions (including Decimals and Percentages)

| COUNTING IN FRACTIONAL STEPS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  | Pupils should count in fractions up to 10 , starting from any number and using the $1 / 2$ and $2 / 4$ equivalence on the number line (Non Statutory Guidance) | Count up and down in tenths | Count up and down in hundredths |  |  |
|  | RECOGNISING FRACTIONS |  |  |  |  |  |
|  | Recognise, find and name a half as one of two equal parts of an object, shape or quantity | Recognise, find, name and write fractions $1 / 3^{1}$ ${ }^{1} / 4^{\prime}{ }^{2} / 4$ and ${ }^{3} / 4$ of a length, shape, set of objects or quantity | Recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators 3F-2 | Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence) |  |

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| Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity | Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one - digit numbers or quantities by 10 . |  | Find non-unit fractions of quantities. 5F-1 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Recognise and use fractions as numbers: unit fractions and nonunit fractions with small denominators |  |  |  |
|  | Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. 3F-1 |  |  |  |
|  | COMPARING FRACTIONS |  |  |  |
|  | Compare and order unit fractions, and fractions with the same denominators | Reason about the location of mixed numbers in the linear number system 4F-1 | Compare and order fractions whose denominators are all multiples of the same number | Compare and order fractions, including fractions $>1$ 6F-3 |
|  | Reason about the location of any fraction within 1 in the linear |  |  | Express fractions in a common denomination and |

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|  |  |  | number system. <br> $3 \mathrm{~F}-3$ | use this to compare <br> fractions that are <br> similar in value. <br> $6 F-2$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

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## Number: Fractions (including Decimals and Percentages)

| COMPARING DECIMALS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  |  | Compare numbers with the same number of decimal places up to two decimal places | Read, write, order and compare numbers with up to three decimal places | Identify the value of each digit in numbers given to three decimal places |
| ROUNDING INCLUDING DECIMALS |  |  |  |  |  |  |
|  |  |  |  | Round decimals with one decimal place to the nearest whole number | Round decimals with two decimal places to the nearest whole number and to one decimal place | Solve problems which require answers to be rounded to specified degrees of accuracy |
| EQUIVALENCE (INCLUDING FRACTIONS, DECIMALS AND PERCENTAGES) |  |  |  |  |  |  |
|  |  | Write simple fractions e.g. ${ }^{1} / 2$ of 6 $=3$ and recognise the equivalence of ${ }^{2} / 4$ and $1 / 2$. | Recognise and show, using diagrams, equivalent fractions with small denominators | Recognise and show, using diagrams, families of common equivalent fractions | Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths 5F-2 | Use common factors to simplify fractions; use common multiples to express fractions in the same denomination 6F-1 |
|  |  |  |  | Recognise and write decimal equivalents of any number of tenths or hundredths | Read and write decimal numbers as fractions $\begin{aligned} & \text { (e.g. } 0.71={ }^{71} /{ }_{100} \text { ) } \\ & 5 \text { F-3 } \end{aligned}$ | Associate a fraction with division and calculate decimal fraction equivalents |

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|  |  |  |  |  | recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | (e.g. 0.375) for a simple fraction (e.g. ${ }^{3} / 8$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Recognise and write decimal equivalents to ${ }_{5 \mathrm{~L}-2}^{1} ;^{1} /{ }_{2} ;^{3} / 4$ | 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 as a decimal fraction | Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. |
| ADDITION AND SUBTRACTION OF FRACTIONS |  |  |  |  |  |  |
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  | Add and subtract fractions with the same denominator within one whole (e.g. $/_{7}+{ }^{1} / 7={ }_{7}^{6} / 7$ ) 3F-4 | Add and subtract fractions with the same denominator | Add and subtract fractions with the same denominator and multiples of the same number | Add and subtract <br> fractions with <br> different <br> denominators and <br> mixed numbers, <br> using the <br> concept of equivalent fractions |

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## Number: Fractions (including Decimals and Percentages)

|  |  |  |  |  | recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. ${ }^{2} / 5$ $\left.+{ }^{4} /{ }_{5}={ }^{6} / 5=1^{1} /{ }_{5}\right)$ <br> 4F-2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. 4F-3 |  |
|  | MULTIPLICATION AND DIVISION OF FRACTIONS |  |  |  |  |  |
|  |  |  |  |  | Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | Multiply simple pairs of proper fractions, writing the answer in its simplest form $\text { (e.g. }{ }^{1} / 4 \times 1 / 2=1 / 8 \text { ) }$ |

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Number: Fractions (including Decimals and Percentages)

|  |  |  |  |  |  | Multiply one-digit numbers with up to two decimal places by whole numbers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Divide proper fractions by whole numbers (e.g. ${ }^{1} / 3 \div 2$ $={ }^{1} /{ }_{6}$ ) |
| MULTIPLICATION AND DIVISION OF DECIMALS |  |  |  |  |  |  |
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  |  | Find the effect of dividing a one- or twodigit number by 10 and 100 , identifying the value of the digits in the answer as ones, tenths and hundredths 4MD-1 |  | Multiply one-digit numbers with up to two decimal places by whole numbers |
|  |  |  |  |  |  | Multiply and divide numbers by 10,100 and 1000 where the answers are up to three decimal places |
|  |  |  |  |  |  | Identify the value of each digit to three |

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|  |  |  |  |  |  | decimal places and multiply and divide numbers by 10,100 and 1000 where the answers are up to three decimal places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. ${ }^{3} / 8$ ) 6NPV-1 |
|  |  |  |  |  |  | Use written division methods in cases where the answer has up to two decimal places |
| PROBLEM SOLVING |  |  |  |  |  |  |
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  | Solve problems that involve all of the above | Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide | Solve problems involving numbers up to three decimal places |  |

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Number: Fractions (including Decimals and Percentages)

|  |  |  |  | quantities, including non-unit fractions where the answer is a whole number |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Solve simple measure and money problems involving fractions and decimals to two decimal places. | Solve problems which require knowing percentage and decimal equivalents of ${ }^{1} / 2^{\prime}{ }^{1} / 4^{\prime}{ }^{1} / 5_{5^{\prime}}{ }^{2} / 5_{5^{\prime}}{ }^{4} / 5$ and those with a denominator of a multiple of 10 or 25 . |  |

