

| COUNTING IN FRACTIONAL STEPS |                    |   |   |   |  |  |        |
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| Foundation Stage 1           | Foundation Stage 2 | 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 $\frac{1}{2}$ and $\frac{2}{4}$ equivalence on the number line (Non-Statutory)  | Count up and down in tenths   | Count up and down in hundredths  |  |        |
| RECOGNISING FRACTIONS        |                    |   |   |   |  |  |        |
|                              |                    | <p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity</p> <p>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</p> | <p>Recognise, find, name and write fractions <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity</p> | <p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</p> <p>Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10.</p> <p>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</p> | <p>Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten</p> | <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence)</p> |        |

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| COMPARING FRACTIONS   |  |  |   |  |   |   |  |
|   |  |  |   | Compare and order unit fractions, and fractions with the same denominators       | Compare numbers with the same number of decimal places up to two decimal places   | Compare and order fractions whose denominators are all multiples of the same number<br><br>Read, write, order and compare numbers with up to three decimal places                 | Compare and order fractions, including fractions $>1$<br><br>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. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ . | Recognise and show, using diagrams, equivalent fractions with small denominators | Recognise and show, using diagrams, families of common equivalent fractions recognise and write decimal equivalents of any number of tenths or hundredths | Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths<br><br>Read and write decimal numbers as fractions (e.g. | Use common factors to simplify fractions; use common multiples to express fractions in the same denomination<br><br>Associate a fraction with division and calculate decimal |

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|                                       |  |  |  |  | <p>Recognise and write decimal equivalents to <math>\frac{1}{4}</math>;<br/> <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math></p> | <p><math>0.71 = \frac{71}{100}</math></p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</p>   | <p>fraction equivalents (e.g. 0.375) for a simple fraction (e.g. <math>\frac{3}{8}</math>)</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p> |
| ADDITION AND SUBTRACTION OF FRACTIONS |  |  |  |  |   |  |  |
|                                       |  |  |  | <p>Add and subtract fractions with the same denominator within one whole (e.g. <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math>)</p> | <p>Add and subtract fractions with the same denominator</p>   | <p>Add and subtract fractions with the same denominator and multiples of the same number</p> <p>recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number (e.g. <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math>)</p> | <p>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</p>   |

| MULTIPLICATION AND DIVISION OF FRACTIONS |  |  |  |  |  |   |  |
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|  |  |  |  |  | Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths | Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form<br/>(e.g. <math>\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}</math>)</p> <p>Multiply one-digit numbers with up to two decimal places by whole numbers</p> <p>Divide proper fractions by whole numbers<br/>(e.g. <math>\frac{1}{3} \div 2 = \frac{1}{6}</math>)</p> <p>Multiply one-digit numbers with up to two decimal places by whole numbers</p> <p>Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places</p> <p>Identify the value of each digit to three decimal places and multiply and</p> |

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|                 |  |  |  |  |  |  | <div>divide numbers by 10, 100 and 1000 where the answers are up to three decimal places</div> <div>Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. <math>\frac{3}{8}</math>)</div> <div>Use written division methods in cases where the answer has up to two decimal places</div> |
| PROBLEM SOLVING |  |  |  |  |  |  |   |
|                 |  |  |  | Solve problems that involve all of the above | <div>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</div> <div>Solve simple measure and</div> | <div>Solve problems involving numbers up to three decimal places</div> <div>Solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math>, <math>\frac{2}{5}</math>, <math>\frac{4}{5}</math> and those with a</div> |   |

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|  |  |  |  |  | money problems involving fractions and decimals to two decimal places. | denominator of a multiple of 10 or 25. |  |
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