



## Preston CofE Primary School

### Maths Progression of Skills – fractions inc. decimals and percentages

|  | EYFS | KS1  |  | KS2   |  |   |        |
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|  | EYFS | Year 1   | Year 2   | Year 3  | Year 4   | Year 5  | Year 6 |
| <b><u>Counting in fractional steps</u></b> |      |  |  |   |  |   |        |
|  |      |  | <i>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)</i> | Count up and down in tenths.  | Count up and down in hundredths.   |   |        |
| <b><u>Recognising fractions</u></b>        |      |  |  |   |  |   |        |
|  |      | 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, 1/4, 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 non-unit fractions with small denominators.<br><br>Recognise that tenths arise from dividing an object | 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. |  | into 10 equal parts and in dividing one – digit numbers or quantities by 10.<br><br>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. |  |  |  |
| <b><u>Comparing fractions</u></b>         |  |  |  |  |  |  |  |
|   |  |  |  | Compare and order unit fractions, and fractions with the same denominators.  |  | Compare and order fractions whose denominators are all multiples of the same number. | Compare and order fractions, including fractions $>1$ .                    |
| <b><u>Comparing decimals</u></b>          |  |  |  |  |  |  |  |
|   |  |  |  |  | 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. |
| <b><u>Rounding including decimals</u></b> |  |  |  |  |  |  |  |

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|   |  |  |   |   | 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.   |
| <b>Equivalence including: fractions, decimals and percentages</b> |  |  |   |   |   |   |  |
|   |  |  | 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. | <p>Recognise and show, using diagrams, families of common equivalent fractions.</p> <p>Recognise and write decimal equivalents of any number of tenths or hundredths.</p> <p>Recognise and write decimal equivalents to <math>\frac{1}{4}</math>; <math>\frac{1}{2}</math>; <math>\frac{3}{4}</math>.</p> | <p>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</p> <p>read and write decimal numbers as fractions (e.g. <math>0.71 = \frac{71}{100}</math>).</p> <p>Recognise and use thousandths and relate them to tenths, hundredths</p> | <p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</p> <p>Associate a fraction with division and calculate decimal fraction equivalents (e.g. <math>0.375</math>) for a simple fraction (e.g. <math>\frac{3}{8}</math>).</p> |

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|   |  |  |  |   |  | <p>and decimal equivalents.</p> <p>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.</p> | <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p>     |
| <b><u>Addition and subtraction of fractions</u></b> |  |  |  |   |  |   |   |
|   |  |  |  | <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</p>  | <p>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</p> |

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|   |  |  |  |  |  | improper fractions and convert from one form to the other and write mathematical statements $> 1$ as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ ). |   |
| <b>Multiplication and division of fractions</b> |  |  |  |  |  |   |   |
|   |  |  |  |  |  | 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 (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</p> |

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|  |  |  |  |  |  |  | numbers (e.g.<br>$1/3 \div 2 = 1/6$ ). |
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