



Number: Fractions (including Decimals and Percentages)

| | COUNTING IN FRACTIONAL STEPS | | | | | |
|------|---|--|--|---|---|---|
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| | | <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 | | |
| | 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 / 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 | 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) | |
| | | | recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. | | | |
| | recognise, find and name a quarter as one of four equal parts of an object, shape or quantity | | recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators | | | |
| | COMPARING FRACTIONS | | | | | |
| | | | 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 |



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| | 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. $\frac{1}{2}$ 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 | identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths | use common factors to simplify fractions; use common multiples to express fractions in the same denomination |
| | | | | recognise and write decimal equivalents of any number of tenths or hundredths | read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$) | associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$) |
| | | | | | recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | |
| | | | | recognise and write decimal equivalents to | recognise the per cent symbol (%) and | recall and use equivalences |



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| | | | | $\frac{1}{4}; \frac{1}{2}; \frac{3}{4}$ | understand that per cent relates to “number of parts per hundred”, and write percentages as a fraction with denominator 100 as a decimal fraction | 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. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$) | 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 fractions with different denominators and mixed numbers, using the concept of equivalent fractions |
| | | | | | 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. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$) | |
| 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 (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$) |



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| | | | | | | multiply one-digit numbers with up to two decimal places by whole numbers |
| | | | | | | divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$) |
| MULTIPLICATION AND DIVISION OF DECIMALS | | | | | | |
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| | | | | | | multiply one-digit numbers with up to two decimal places by whole numbers |
| | | | | 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 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 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 |



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| | | | | | | calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$) |
| | | | | | | 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 quantities, including non-unit fractions where the answer is a whole number | solve problems involving numbers up to three decimal places | |
| | | | | solve simple measure and money problems involving fractions and decimals to two decimal places. | solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25. | |