

Fractions, Decimals and Percentages Progression Grid.

Progression Grid:	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Counting in Fractional steps		To be able to 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 Guidance)	To be able to count up and down in tenths	To be able to count up and down in hundredths		
Recognising Fractions	To recognise, find and name a half as one of two equal parts of an object, shape or quantity	To recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity	To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	To recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	TO recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence)	
	To recognise, find and name a quarter as one of four equal parts of an object, shape or quantity		To recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10.			

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Comparing Fractions			To compare and order unit fractions, and fractions with the same denominators		To compare and order fractions whose denominators are all multiples of the same number	To compare and order fractions, including fractions >1
Comparing Decimals				To compare numbers with the same number of decimal places up to two decimal places	To read, write, order and compare numbers with up to three decimal places	To identify the value of each digit in numbers given to three decimal places
Rounding Including Decimals				To round decimals with one decimal place to the nearest whole number	To round decimals with two decimal places to the nearest whole number and to one decimal place	To solve problems which require answers to be rounded to specified degrees of accuracy
Equivalence (including Fractions, decimals and %)		To write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.	To recognise and show, using diagrams, equivalent fractions with small denominators	To recognise and show, using diagrams, families of common equivalent fractions	To identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	To use common factors to simplify fractions; use common multiples to express fractions in the same denomination

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				To recognise and write decimal equivalents of any number of tenths or hundredths	To read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$) To recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	To associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$)
				To recognise and write decimal equivalents to $\frac{1}{4}; \frac{1}{2}; \frac{3}{4}$	To 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	To recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
Addition and subtraction of Fractions			To add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$)	To add and subtract fractions with the same denominator	To add and subtract fractions with the same denominator and multiples of the same number	To add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions

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					To 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					To multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	To multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$)
						To multiply one-digit numbers with up to two decimal places by whole numbers
						To divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$)
						To multiply one-digit numbers with up to two decimal places by whole numbers



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				To 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		To multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
						To 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
						To associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$)
						To use written division methods in cases where the answer has up to two decimal places
Problem Solving			To solve problems that involve all of the above	To solve problems involving increasingly	To solve problems involving numbers up to three decimal places	



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				harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number	To 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.	
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