



Fractions, Decimals and Percentages Progression

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Counting in Fractional steps			Pupils should count in fractions up to 10, starting from any number and using $\frac{1}{2}$ and $\frac{2}{4}$ equivalence on the number line (NSG).	Count up and down in tenths.	Count up and down in hundredths.	Count forwards and backwards in simple fractional amounts.	
Recognising Fractions	Begin to use the language of half.	Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	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.	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. Recognise and use fractions as numbers: 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.	
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 .

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. Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. Read and write decimal numbers as fractions (e.g. 0.71 = $\frac{71}{100}$). Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. Recognise the percent 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.	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
Addition and Subtraction of Fractions				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. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). 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					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 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 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. $\frac{3}{8}$). Use written division methods in cases where the answer has up to two decimal places.
Problem Solving				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 simple measure and money problems involving fractions and decimals to two decimal places.	Solve problems involving numbers up to three 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.	

Key: National Curriculum Fractions, Decimals and Percentages Programme of Study Objectives / [Ready to Progress Statements](#)