Barford St. Peter's C.E. (V.A.) Primary School

Together we love; together we learn

Maths Knowledge and Skills Progression for: FRACTIONS (INCLUDING DECIMALS AND PERCENTAGES

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Counting in fractional steps				• 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 and name a quarter as one of four 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 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

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Comparing decimals					• 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. $^{1}/_{2}$ of 6 = 3 and recognise the equivalence of $^{2}/_{4}$ and $^{1}/_{2}$	• 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 $^{1}/_{4}$; $^{1}/_{2;}$ $^{3}/_{4}$	• 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 = $^{71}/_{100}$) • recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with	• 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. $^{3}/_{8}$) • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

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						denominator 100 as a decimal fraction	
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Addition and subtraction of fractions				• add and subtract fractions with the same denominator within one whole (e.g. $^{5}/_{7} + {}^{1}/_{7} = {}^{6}/_{7}$)	• add and subtract fractions with the same denominator	• add and subtract fractions with the same denominator and multiples of the same number • recognise mixed numbers fractions and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $^{2}/_{5} + {}^{4}/_{5} = {}^{6}/_{5} = 1\,{}^{1}/_{5}$	• add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
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. $^{1}/_{4} \times {}^{1}/_{2} = {}^{1}/_{8}$) • multiply one-digit numbers with up to two decimal places by whole numbers • divide proper fractions by whole numbers (e.g. $^{1}/_{3} \div 2 = {}^{1}/_{6}$)