

### Year 3

#### Fractions, Decimals and Percentages

- I can count up and down in tenths
- I can recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
- I can recognise that tenths arise from dividing an object into 10 equal parts and in dividing one - digit numbers or quantities by 10.
- I can recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
- I can recognise simple fractions such as  $\frac{1}{2}$  and  $\frac{1}{4}$  (CPA)
- I can recognise more complex fractions such as  $\frac{3}{4}$  and (CPA)
- I can compare and order simple unit fractions such as  $\frac{1}{2}$  and  $\frac{1}{4}$  and fractions with the same denominator
- I can solve problems that involve all of the above

**Vocabulary :** Compare, order, numerator, denominator, unit fraction , tenths, scaling

### Year 4

#### Fractions, Decimals and Percentages

- I can count up and down in hundredths and recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
- I can round decimals with one decimal place to the nearest whole number
- I can recognise and show, using diagrams, families of common equivalent fractions
- I can recognise and write decimal equivalents of any number of tenths or hundredths
- I can recognise and write decimal equivalents to  $\frac{1}{4}$  ;  $\frac{1}{2}$  ;  $\frac{3}{4}$
- I can 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
- I can solve simple measure and money problems involving fractions and decimals to two decimal places
- I can compare numbers up to 100,000 and with up to 2d.p.

**Vocabulary:** equivalent, decimal, tenths, round, diagram



## Progression in Mathematics at Banks Lane Junior School— Fractions, Ratio and proportion and Algebra

### Year 6

#### Fractions, Decimals and Percentages

- I can compare and order fractions, including fractions  $> 1$
- I can solve rounding problems which require answers to be rounded to specified degrees of accuracy
- I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- I can associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g.  $\frac{3}{8}$ )
- I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
- I can use written division methods in cases where the answer has up to two decimal places
- I can associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example,  $\frac{3}{8}$ ]

#### Ratio and Proportion

- I can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
- I can solve problems involving similar shapes where the scale factor is known or can be found
- I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

#### Algebra

- I can express missing number problems algebraically
- I can find pairs of numbers that satisfy number sentences involving two unknowns
- I can enumerate all possibilities of combinations of two variables
- I can use simple formulae
- I can generate and describe linear number sequences

**Vocabulary:** degree of accuracy, simplify, linear, substitute, variables, symbol, known values

### Year 5

#### Fractions, Decimals and Percentages

- I can compare and order fractions whose denominators are all multiples of the same number
- I can round decimals with two decimal places to the nearest whole number and to one decimal place
- I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- I can read, write, order and compare numbers with up to three decimal places
- I can read and write decimal numbers as fractions (e.g.  $0.71 = \frac{71}{100}$ )
- I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- I can 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
- I can 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.  $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ )
- I can solve problems involving numbers up to three decimal places
- I can 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

**Vocabulary :** improper fractions, mixed number, percentage, half, quarter, ratio, proportion