Danson Primary School Maths Skills Progression: Fractions

| Fractions KS1 |  |  |  |
| :---: | :---: | :---: | :---: |
|  | EYFS | Year 1 | Year 2 |
| COUNTING IN FRACTIONAL STEPS |  |  | I can 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) |
| Recognising fractions | I can solve problems, including doubling, halving and sharing I can explore the relationship between doubling and halving | I can recognise, find and name a half as one of two equal parts of an object, shape or quantity <br> I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity | I can recognise, find, name and write fractions $1 / 3,1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity |
| Comparing fractions |  | I can compare what a half and a quarter looks like in different shapes. | I can compare and order unit fractions, and fractions with the same denominators |
| Equivalence |  |  | I can write simple fractions e.g. ${ }^{1 / 2}$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$. |

Fractions KS2

| Fractions KS2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Year 3 | Year 4 | Year 5 | Year 6 |
| Counting in fractional steps | I can count up and down in tenths | I can count up and down in hundredths |  |  |
| Recognising fractions | I can recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators <br> I can recognise that tenths arise from dividing an object into 10 equal parts and in dividing one - digit numbers or quantities by 10 . <br> I can recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators | I can recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten <br> I can recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten | I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence) |  |
| Comparing fractions | I can compare and order unit fractions, and fractions with the same denominators |  | I can compare and order fractions whose denominators are all multiples of the same number | I can compare and order fractions, including fractions >1 |
| Rounding including decimals | I can Round to the nearest 10 and 100 | I can Round to the nearest 1,100 and 1000 I can round decimals with one decimal place to the nearest whole number | I can round to the nearest 1000 I can round within 100,000 I can round decimals with two decimal places to the nearest whole number and to one decimal place | I can Solve problems which require answers to be rounded to specified degrees of accuracy |
| Equivalence | I can recognise and show, using diagrams, equivalent fractions with small denominators recognise and write decimal equivalents of any number of tenths or hundredths | I can recognise and show, using diagrams, families of common equivalent fractions <br> I can recognise and write decimal equivalents to $1 / 4 ; 1 / 2 ; 3 / 4$ | I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <br> I can read and write decimal numbers as fractions (e.g. $0.71={ }^{71} /{ }_{100}$ ) <br> I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents <br> I can 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 | I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination <br> I can associate a fraction with division and I can calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. ${ }^{3} / 8$ ) <br> I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. |


|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Addition and subtraction of fractions | I can add and subtract fractions with the same denominator within one whole (e.g. $5 / 7+1 / 7=6 / 7$ ) | I can add and subtract fractions with the same denominator | I can add and subtract fractions with the same denominator and multiples of the same number <br> I can 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. ${ }^{2} / 5$ $\left.+4 / 5=6 / 5=1^{1} / 5\right)$ | add and subtract fractions with different I can denominators and mixed numbers, using the I can use concept of equivalent fractions |
| Multiplication and division of fractions and decimals |  | I can 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 | I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | I can multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. ${ }^{1 / 4} \times$ $1 / 2=1 / 8$ ) <br> I can multiply one-digit numbers with up to two decimal places by whole numbers <br> I can divide proper fractions by whole numbers (e.g. ${ }^{1} / 3 \div 2=1 / 6$ ) <br> I can multiply one-digit numbers with up to two decimal places by whole numbers <br> I can multiply and divide numbers by 10,100 and 1000 where the answers are up to three decimal places <br> I can 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 <br> I can associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. ${ }^{3} / 8$ ) <br> I can use written division methods in cases where the answer has up to two decimal places |
| Problem solving | I can solve problems that involve all of the above | 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 problems involving numbers up to three decimal places |  |



