|  |
| --- |
| **COUNTING IN FRACTIONAL STEPS** |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
|  | *Pupils should count in fractions up to 10, starting from any number and using the1/2 and 2/4 equivalence**on the number line.* | 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, name and1 1 2write fractions / , / , /3 4 43and / of a set of objects,4shape, quantity or length. | recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators(2,5,10,3,4,8) | 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(appears also in Equivalence) |  |
| recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by10. |
| recognise, find and name a quarter as one of four equal parts of an object, shape or quantity | recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators(2,5,10,3,4,8) |
| **COMPARING FRACTIONS** |
|  |  | compare and order unit fractions, and fractions with the same denominators | compare and order unit fractions, and fractions with the same denominators (Consolidation from Year 3) | compare and order fractions whose denominators are all multiples of the same number | compare and order fractions, including fractions >1 |

|  |
| --- |
| **COMPARING DECIMALS** |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
|  |  |  | compare numbers with the same number of decimal places up to two decimalplaces | 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, up to 2 decimal places. |
| **EQUIVALENCE (INCLUDING FRACTIONS, DECIMALS AND PERCENTAGES)** |
|  | write simple fractions1e.g. / of 6 = 3 and2recognise the2equivalence of / and41/ .2 | recognise and show, using diagrams, equivalent fractions with small denominators | recognise and show, using diagrams, families of common equivalent fractions | identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths | use common factors to simplify fractions; use common multiples to express fractions in the same denomination |
|  |  |  | recognise and write decimal equivalents of any number of tenths or hundredths | read and write decimal numbers as71fractions (e.g. 0.71 = / )100 | associate a fraction with division and calculate decimal fraction equivalents (e.g.0.375) for a simple fraction3(e.g. / )8 |
| recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents |
|  |  |  | recognise and write decimal1 1 3equivalents to / ; / ; /4 2 4 | 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 | recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. |

|  |
| --- |
| **ADDITION AND SUBTRACTION OF FRACTIONS** |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
|  |  | add and subtract fractions with the same denominator within one5 1 6whole (e.g. / + / = / )7 7 7 | add and subtract fractions with the same denominator | add and subtract fractions with the same denominator and multiples of the samenumber | 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 mixed2 4 6number (e.g. / + / = /5 5 51= 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 simplest1 1 1form (e.g. / × / = / )4 2 8 |
| multiply one-digit numbers with up to two decimal places by wholenumbers |
|  |  |  |  |  | divide proper fractions by1whole numbers (e.g. / ÷312 = / )6 |

|  |
| --- |
| **MULTIPLICATION AND DIVISION OF DECIMALS** |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
|  |  |  |  |  | multiply one-digit numbers with up to two decimal places by wholenumbers |
|  |  |  | 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 andhundredths |  | 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. 3/8) |
|  |  |  |  |  | use written division methods in cases where the answer has up to two decimal places |

|  |
| --- |
| **PROBLEM SOLVING** |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
|  |  | 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 problems involving numbers up to three decimal places |  |
|  |  |  | solve simple measure and money problems involving fractions and decimals to two decimal places. | solve problems which require knowing percentage and decimal1 1 1equivalents of / , / , / ,2 4 52 4/ , / and those with a5 5denominator of a multiple of 10 or 25. |  |