



English Progression
Writing Expectation History
Mathematics DT Science PE Languages
Art Geography Computing Differentiation
Progression Expectation **National Curriculum**
Languages English Writing Progression
Differentiation Science Art
Mathematics Expectation

Progression in the new National Curriculum

Fractions, decimals and percentages

| Rec/ELG | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
|---|--|---|--|--|--|--|
| | | | | | | Associate a fraction with division & calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). |
| Solve problems, including doubling, halving & sharing . ELG | Recognise, find & name a half as one of two equal parts of an object, shape or quantity. Recognise, find & name a quarter as one of four equal parts of an object, shape or quantity. | Recognise, find, name & write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ or a length, shape, set of objects or quantity. | | Recognise & show, using diagrams, families of common equivalent fractions . Recognise & write decimal equivalents on any number of tenths or hundredths. Recognise & write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$. | Identify, name & write equivalent fractions of a given fraction, represented visually, incl tenths & hundredths. Read & write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$). | Identify the value of each digit to three decimal places and multiply & divide numbers by 10, 100 and 1000 where the answers are up to three decimal places |
| | | | | Find the effect of dividing a 1-digit or 2-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths. | | |
| | | Write simple fractions , e.g. $\frac{1}{2}$ or $6 \div 3$ and recognise the equivalence of $\frac{2}{4}$ & $\frac{1}{2}$. | Count up & down in tenths; recognise that tenths arise from dividing an object into 10 equal parts & in dividing 1-digit numbers or quantities by 10. | Count up & down in hundredths; recognise that hundredths arise when dividing an object by a hundred & dividing tenths by ten. | Recognise & use thousandths & relate then to tenths, hundredths & decimal equivalents. | |
| | | | | | Recognise mixed numbers & improper fractions & convert from one form to the other & write mathematical statements. | |
| | | | Compare & order unit fractions, & fractions with the same denominators. | | Compare & order fractions whose denominators are all multiples of the same number. | Compare & order fractions , including fractions > 1 . Use common factors to simplify fractions; use common multiples to express fractions in the same denomination |
| | | | Recognise, find & write fractions or a discrete set of objects: unit fractions & non-unit fractions with small denominators | | | |
| | | | Recognise & use fractions as numbers: unit fractions & non-unit fractions with small denominators. | | | |
| | | | Recognise & show , using diagrams, equivalent fractions with small denominators. | | | |

| | | | | | | |
|--|--|--|--|--|--|---|
| | | | Add & subtract fractions with the same denominator within one whole (e.g. $5/7 + 1/7 = 6/7$) | Add & subtract fractions with the same denominator. | Add & subtract fractions with the same denominator & multiples of the same number. | Add & subtract fractions with different denominators & mixed numbers, using the concept of equivalent fractions. |
| | | | | | Multiply proper fractions & mixed numbers by whole numbers, supported by materials & diagrams. | Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $1/4 \times 1/2 = 1/8$) |
| | | | | | | Multiply 1-digit numbers with up to two decimal places by whole numbers. |
| | | | | | | Divide proper fractions by whole numbers (e.g. $1/3 \div 2 = 1/6$). Use written division methods in cases where the answer has up to two decimal places. |
| | | | | 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. | |
| | | | | 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 . | |
| | | | | | Recognise the per cent symbol (%) & understand that per cent relates to 'number or parts per hundred', and write percentages as a fraction with denominator hundred, and as a decimal fraction. | |
| | | | | | | Recall & use equivalences between simple fractions, decimals & percentages, including in different contexts. |
| | | | | | Solve problems which require knowing percentage & decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those with a denominator of a multiple of 10 or 25. | Solve problems involving the calculation of percentages of whole numbers or measures such as 15% of 360 and the use of percentages for comparison.* |
| | | | Solve problems that involve all of the above. | Solve problems involving increasingly harder fractions to calculate quantities, & fractions to divide quantities, including non-unit fractions where the answer is a whole number. Solve simple measure & money problems involving fractions & decimals to two decimal places. | Solve problems involving number up to three decimal places. | Solve problems which require answers to be rounded to specified degrees of accuracy. |