

## Year 5 - Addition

Continue using a range of equations with appropriate numbers, with more than 4 digits and including decimal.

**Mental methods are used with increasingly large numbers, developing fluency. (e.g.  $10,162 + 2300 = 12,462$ )**

As part of the mental process children continue to partition as required.

$$10,000 + 2000 = 12000$$

$$162 + 300 = 462$$

$$12000 + 462 = 12462$$

**Pupils apply formal column addition, accurately, as part of multi-step problems using**

Formal method shows numbers carried clearly and use of place holders known to not be crucial but aids accuracy.

$$916.95 + 78.3 + 36.36 = 1031.61$$

$$\begin{array}{r} \phantom{+} \phantom{+} \phantom{+} 9 \phantom{.} 1 \phantom{.} 6 \phantom{.} 9 \phantom{.} 5 \\ + \phantom{+} \phantom{+} \phantom{+} \phantom{.} 7 \phantom{.} 8 \phantom{.} 3 \phantom{.} \phantom{.} \phantom{.} \phantom{.} \\ \hline \phantom{+} \phantom{+} \phantom{+} \phantom{.} \phantom{.} \phantom{.} \phantom{.} 2 \phantom{.} 3 \phantom{.} 1 \phantom{.} 6 \phantom{.} 1 \phantom{.} 3 \phantom{.} 6 \\ \hline \phantom{+} \phantom{+} \phantom{+} \phantom{.} \phantom{.} \phantom{.} \phantom{.} \phantom{.} 1 \phantom{.} 0 \phantom{.} 3 \phantom{.} 1 \phantom{.} 6 \phantom{.} 1 \end{array}$$

**Multiple numbers with more than 4 digits and decimals.**

**Estimating and inverse checking should be a regular part of each pupils own calculation process.**

(Pupils should make use of rounding to estimate and know it provides different levels of accuracy.)

## Year 5 - Subtraction

Continue using a range of equations with appropriate numbers, progressing beyond 4 digit numbers and multiple decimal places.

**Mental subtraction methods are used with increasingly large numbers, developing fluency. (e.g. 12,462 - 2300 = 10,162)**

As part of the mental process children continue to partition as required.

$$12,462 - 2000 = 10462$$

$$10462 - 300 = 10162$$

### Column Subtraction

Making use of column subtraction in multi-step problems in a variety of contexts. Numbers beyond 4 digits with multiple decimals.

Examples of numbers with different decimal places (as in addition). Decimal points should line up under each other. Emphasis on use of place holders to ensure accuracy.

$$646.42 - 94.7 = 651.72$$

$$\begin{array}{r} \phantom{0}^5\cancel{6} \phantom{0}^{14} \phantom{0}^5\cancel{6} . \phantom{0}^{14} \phantom{0}^2 \\ - \phantom{0}^0 \phantom{0}^9 \phantom{0}^4 . \phantom{0}^7 \phantom{0}^0 \\ \hline \phantom{0}^6 \phantom{0}^5 \phantom{0}^1 . \phantom{0}^7 \phantom{0}^2 \end{array}$$

**Estimating and inverse checking should be a regular part of each pupils own calculation process.**

(Pupils should make use of rounding to estimate and know it provides different levels of accuracy.)



## Year 5 - Division

Children use place value knowledge to move integers when dividing by 10,100 and 1000:  
(linking in use of /10,100 for calculating %s)

What is 1% of 340?

H T U 10th

3 . 4 x 100

3 4 0

Therefore 1% of 340 = 3.4

### Efficient Written method

$\frac{4}{7}$  (progressing to generating remainder as a fraction)  $186 \div 7 = 26$

$$7 \overline{) 186} \begin{array}{r} 26 \\ \underline{14} \phantom{0} \\ 46 \\ \underline{42} \\ 4 \end{array} \frac{4}{7}$$

(remainder becomes numerator to be placed over divisor)

A fast recall of tables is essential. Jottings are essential. Marks are given for children who show working out, even if the final answer is incorrect

**Estimating and inverse checking should be a regular part of each pupils own calculation process.**