

## Strategies for the Written Method of Calculation for Subtraction

(Strategies indicate end of year expectations)

### Year One

**Statutory Guidance:** subtract one-digit and two-digit numbers to 20, including zero. Solve one-step problems that involve subtraction, using concrete objects and pictorial representations, and missing number problems.

**A Subtraction Strategy A**

Recording using symbols or pictures

Developing a mental picture of the number system

8 take away 3 makes...

8 take away 3 = 5

**B Subtraction Strategy B**

Using concrete objects and pictorial representations

$13 - 5 =$

$13 - 5 = 8$

**C Subtraction Strategy C**

Counting back using a number line

$17 - 6 =$

So,  $17 - 6 = 11$

**D Subtraction Strategy D**

Jumping back to the previous 10 (Using more efficient jumps)

$14 - 8 =$

So,  $14 - 8 = 6$

### Year Two

**Statutory Guidance:** subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers.

**E Subtraction Strategy E**

Jumping back in 10s then units using partitioning

$38 - 16 =$

$-10$  then  $-6$

So,  $38 - 16 = 22$

**F Subtraction Strategy F**

Jumping back in larger jumps using partitioning

$73 - 36 =$

$-30$  then  $-6$

So,  $73 - 36 = 37$

**G Subtraction Strategy G**

Expanded decomposition with no exchanges

$98 - 54 =$

$$\begin{array}{r} 90 \quad 8 \quad 98 \\ - 50 \quad 4 \quad 54 \\ \hline 40 \quad 4 \quad 44 \end{array}$$

So,  $98 - 54 = 44$

### Year Three

**Statutory Guidance:** subtract numbers with up to three digits, using formal written methods of columnar subtraction.

**H Subtraction Strategy H**

Expanded decomposition with one exchange

$92 - 57 =$

$$\begin{array}{r} 80 \quad 12 \quad 92 \\ 90 \quad 2 \quad 92 \\ - 50 \quad 7 \quad 57 \\ \hline 30 \quad 5 \quad 35 \end{array}$$

So,  $92 - 57 = 35$

**I Subtraction Strategy I**

Expanded decomposition with exchanges

$226 - 72 =$

$$\begin{array}{r} 100 \quad 120 \\ 200 \quad 20 \quad 6 \quad 126 \\ - 70 \quad 2 \quad 72 \\ \hline 100 \quad 50 \quad 4 \quad 154 \end{array}$$

So,  $226 - 72 = 154$

## Year Four


**Statutory Guidance:** subtract numbers with up to four digits using the formal written methods of columnar subtraction where appropriate. Linked to money and measures (*non-statutory guidance*) to 2 decimal places.

**J** Subtraction Strategy J **J**

The compact column method

$$754 - 286 =$$
$$\begin{array}{r} \phantom{6} \phantom{14} \phantom{1} \\ 754 \\ - 286 \\ \hline 468 \end{array}$$

$754 - 286 = 468$




**K** Subtraction Strategy K **K**

The compact column method: up to 4 digits

$$8,417 - 3,908 =$$
$$\begin{array}{r} \phantom{71} \phantom{01} \\ 8417 \\ - 3908 \\ \hline 4509 \end{array}$$

$8,417 - 3,908 = 4,509$




**L** Subtraction Strategy L **L**

The compact column method: 2 decimal places

$$67.75 - 28.50 =$$
$$\begin{array}{r} \phantom{51} \\ 67.75 \\ - 28.50 \\ \hline 39.25 \end{array}$$

$67.75 - 28.50 = 39.25$



## Year Five


**Statutory Guidance:** subtract whole numbers with more than four digits, including using formal written methods (columnar subtraction).  
**Measurement:** use all four operations to solve problems involving measure using decimal notation, including scaling.

**M** Subtraction Strategy M **M**

The compact column method: more than 4 digits

$$12,407 - 9,614 =$$
$$\begin{array}{r} \phantom{11} \phantom{01} \phantom{51} \\ 12407 \\ - 9614 \\ \hline 2793 \end{array}$$

$12,407 - 9,614 = 2,793$



## Year Six

**Statutory Guidance:** solve subtraction multi-step problems in contexts, deciding which operations and methods to use and why.  
**Measurement:** solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.

**N** Subtraction Strategy N **N**

The compact column method: up to 3 decimal places

$$67.715 - 38.520 =$$
$$\begin{array}{r} \phantom{51} \phantom{61} \\ 67.715 \\ - 38.520 \\ \hline 29.195 \end{array}$$

$67.715 - 38.520 = 29.195$

