Subtraction: Blue (Y4)

Mental Work

Derive and recall

- differences of pairs of multiples of 10, 100 or 1000

Work mentally (with jottings if needed)

- subtract any pair of 2-digit numbers , including crossing the tens and 100 boundary, e.g. 91 -35 (partition: subtract tens and then ones, e.g. subtract 30 then 5)
- subtract by counting up from the smaller to the larger number when numbers are close together
- subtract a near multiple of 10, e.g. 86 - 38 (partition: subtract a multiple of 10 and adjust)
- subtract 2-digit or 3-digit multiples of 10, e.g. 120 – 40 (use knowledge of 12 - 4), 370 - 180

Children should be encouraged to:

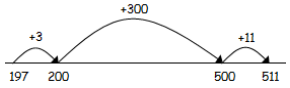
* **approximate** their answers before calculating

***consider if a mental calculation** would be appropriate **before** using written methods

***check their answers** after calculation using an appropriate strategy

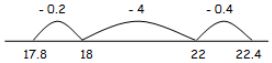
Number lines

Where the numbers involved in the calculation are close together or near to multiples of 10, 100, etc., counting **on** using a number line should be used, e.g. **511 – 197 = 314** (method much less prone to errors)



Remember the BFZN.

Use to demonstrate subtraction using decimals, e.g. **22.4 – 17.8**



Recording: Decomposition

Practical work, e.g. using Base 10 materials, may be useful to illustrate decomposition

Standard decomposition:

Make sure children are used to dealing with zeroes, e.g. **503 – 278 =**

$$\begin{array}{r} {}^{4}\not{5}\,{}^{9}\not{0}\,{}^{13}\not{3} \\ -\ 2\ 7\ 8 \\ \hline 2\ 2\ 5 \end{array}$$

However, if there are two zeroes, recommend the use of a number line, e.g. 1009 – 347.

Children should also be able to subtract numbers with different numbers of digits and use decomposition to subtract **4 digit numbers**

$$\begin{array}{r} {}^{5}6\,{}^{13}\not{4}\,{}^{1}7 \\ -\ 2\ 6\ 8\ 4 \\ \hline 3\ 7\ 8\ 3 \end{array}$$

Missing number calculations

$$\begin{array}{r} 2\square 6 \\ -\ \ 5\square \\ \hline \\ \hline \end{array}$$

How many solutions are there for this problem?

HTU – TU = 79

What could the numbers be?

CHILDREN SHOULD NOT MOVE ONTO THE NEXT STAGE IF:

1) they are not ready
2) they are not confident