

Can I use a written method to subtract?

Teaching guidance

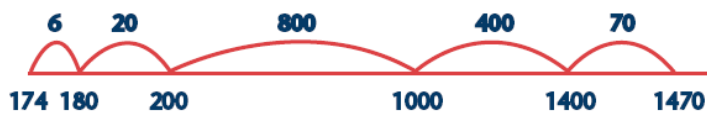
Key vocabulary

subtract, find the difference, minus, take away, more than, less than
calculate, count on, count back

Models and images

Bead strings and number lines help provide a visual representation of the strategy the children have used, for example:

$$1470 - 174 = 1296$$



Make links between the steps on a number line and expanded forms of the written algorithm, for example:

$$\begin{array}{r} 326 \\ -178 \\ \hline 2 \end{array} \rightarrow 180$$

$$20 \rightarrow 200$$

$$100 \rightarrow 300$$

$$\begin{array}{r} 26 \\ \hline 148 \end{array} \rightarrow 326$$

$$\begin{array}{r} 326 \\ -178 \\ \hline 22 \end{array} \rightarrow 200$$

$$126 \rightarrow 326$$

$$148$$

These algorithms can be refined over time to become more efficient.

Teaching tips

- Encourage children to use mental methods of calculation where appropriate. For calculations they cannot do in their heads, ensure they can use an efficient written method accurately and with confidence.
- Practise and secure children's mental methods of calculation alongside teaching written methods in order to ensure that children can:
 - draw on mental calculation skills and number facts within their written methods;
 - make judgements about which approach is most appropriate for a particular calculation.
- To subtract successfully and efficiently, children need to be able to:
 - recall all addition and subtraction facts to 20;
 - quickly derive complements to 10 and 100 and multiples of 10 and 100;
 - subtract multiples of 10, such as $160 - 70$ (using the related subtraction fact $16 - 7$, and their knowledge of place value);
 - partition two-digit and three-digit numbers into multiples of one hundred, ten and one in different ways (e.g. partition 74 into $70 + 4$ or $60 + 14$).
- Ensure that written methods are developed systematically and practised and consolidated so that children always have approaches to fall back on if they have difficulty with a more compact method.
- Help children to take ownership of written methods, for example, by having a 'my method for subtraction' card that travels between home and school.
- Ensure that children experience clear progression and a consistent approach to the teaching of calculation strategies throughout the school.