
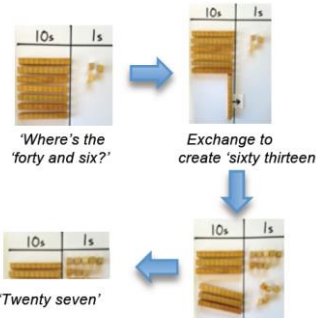




Hatch Warren Junior School Calculation Policy - Subtraction

End of year expectations	Year 3 Subtract numbers with up to 3 digits using formal written methods of columnar subtraction.	Year 4 Subtract numbers with up to 4 digits using the formal written methods of columnar subtraction.	Year 5 Subtract whole numbers with more than 4 digits, including using formal written methods (columnar subtraction).	Year 6 Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
<p>Developing written methods (conceptual understanding)</p>	<p>Bar model (link addition and subtraction) supports mental methods of counting on (e.g. $b+c=a$, $c+b=a$, $a-b=c$, $a-c=b$)</p> <div style="text-align: center;">  </div> <p>1. Dienes to support moving to more formal method: Taking away and exchanging, $73 - 46$</p> <div style="text-align: center;">  <p><i>'Where's the forty and six?'</i></p> <p><i>Exchange to create 'sixty thirteen'</i></p> <p><i>'Twenty seven'</i></p> <p><i>'Now take away the forty and six'</i></p> </div> <p>2. Use dienes to support moving to expanded column method:</p> $ \begin{array}{r} 46 - 22 \\ 40 + 6 \\ - 20 + 2 \\ \hline 20 + 4 = 24 \end{array} $	<p>Secure Year 3 methods using dienes if necessary to support understanding.</p> <p>Exchanging confidently with up to 4 digits (including crossing zero):</p> $ \begin{array}{r} 2 \overset{3}{4} \overset{1}{5} 6 \\ - 1 3 8 5 \\ \hline 1 0 7 1 \end{array} $ <p>Add 1000 more/less than any number.</p> <p>Use estimation to help check answers.</p> <p>Use inverse operations to check answers (see bar model for Y3).</p> <p>NB: children need to be taught how to carry when there are zeros in the number.</p>	<p>Secure column method of subtraction including with decimals in context.</p> $ \begin{array}{r} \overset{2}{1} \overset{1}{.} 6 7 \\ - 1.83 \\ \hline 1.84 \end{array} $	<p>Use formal column method for large numbers, different sized numbers and decimals in different contexts.</p>

Hatch Warren Junior School Calculation Policy - Subtraction

3. Then expanded method with exchange:

$$46 - 27 \quad \begin{array}{r} 30 \\ 40 + 16 \\ \underline{20 + 7} \\ 10 + 9 = 19 \end{array}$$

4. Moving on to formal method (without exchange, then with exchange).

$$\begin{array}{r} \overset{6}{7} \overset{1}{3} \\ - 46 \\ \hline 27 \end{array}$$