

Formal Written Methods: Subtraction

Year	Steps to success	By the end of the year most children will confidently use this method																																																
3	<p style="text-align: center;">Steps to success</p> <p style="text-align: center; color: red;"><i>The images below support the development of formal written methods. Bar models and other representations should be used to aid understanding.</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> Place value counters and Dienes apparatus should be used alongside the formal method to draw attention to exchanging </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; width: 100px;"> <thead> <tr><th>Hundreds</th><th>Tens</th><th>Ones</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table> </div> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; width: 100px;"> <thead> <tr><th>Hundreds</th><th>Tens</th><th>Ones</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table> </div> </div>	Hundreds	Tens	Ones							Hundreds	Tens	Ones							<p>Subtract up to three-digit numbers using columnar methods. ***Note the position of the exchanging.***</p> $ \begin{array}{r} \overset{3}{4} \overset{1}{3} 5 \\ - 273 \\ \hline 262 \end{array} $ <p style="text-align: center; font-size: small;">The concrete representation should be secured before moving on to the abstract.</p>																														
Hundreds	Tens	Ones																																																
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4	<p>As with Year 3, place value counters and Dienes apparatus should still be used alongside formal methods.</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; width: 100px;"> <thead> <tr><th>Thousands</th><th>Hundreds</th><th>Tens</th><th>Ones</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </tbody> </table> </div> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; width: 100px;"> <thead> <tr><th>Thousands</th><th>Hundreds</th><th>Tens</th><th>Ones</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </tbody> </table> </div> </div>	Thousands	Hundreds	Tens	Ones									Thousands	Hundreds	Tens	Ones									<p>Subtract up to four-digit numbers using columnar methods. ***Note the position of the exchanging.***</p> $ \begin{array}{r} \overset{3}{4} \overset{1}{3} 5 7 \\ - 2735 \\ \hline 1622 \end{array} $																								
Thousands	Hundreds	Tens	Ones																																															
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5	<p>Most children will be confident in column subtraction of whole numbers up to 4-digits but place value counters/ plain counters can still be used alongside formal methods when introducing column subtraction of 6 digit numbers or decimals.</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; width: 100px;"> <thead> <tr><th>HTh</th><th>TTh</th><th>Th</th><th>H</th><th>T</th><th>O</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> <p style="font-size: small;">Concrete apparatus for 6 digit numbers</p> </div> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; width: 100px;"> <thead> <tr><th>Ones</th><th>Tenths</th><th>Hundredths</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table> <p style="font-size: small;">Place value and plain counters for decimals</p> </div> </div>	HTh	TTh	Th	H	T	O													Ones	Tenths	Hundredths							<p>Subtract numbers with more than 4 digits using columnar methods</p> <p style="text-align: center;">Subtract with up to 2 decimal places</p> <table style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <td style="border: 1px solid black; width: 20px;"></td> <td style="border: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border: 1px solid black; width: 20px; text-align: center;">9</td> <td style="border: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border: 1px solid black; width: 20px; text-align: center;">13</td> <td style="border: 1px solid black; width: 20px; text-align: center;">8</td> <td style="border: 1px solid black; width: 20px; text-align: center;">2</td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">-</td> <td style="border: 1px solid black; text-align: center;">1</td> <td style="border: 1px solid black; text-align: center;">8</td> <td style="border: 1px solid black; text-align: center;">2</td> <td style="border: 1px solid black; text-align: center;">5</td> <td style="border: 1px solid black; text-align: center;">0</td> <td style="border: 1px solid black; text-align: center;">1</td> </tr> <tr> <td style="border: 1px solid black;"></td> <td style="border: 1px solid black; text-align: center;">1</td> <td style="border: 1px solid black; text-align: center;">1</td> <td style="border: 1px solid black; text-align: center;">1</td> <td style="border: 1px solid black; text-align: center;">8</td> <td style="border: 1px solid black; text-align: center;">8</td> <td style="border: 1px solid black; text-align: center;">1</td> </tr> </table> $ \begin{array}{r} \overset{4}{5} \overset{1}{.} 43 \\ + 2.7 \\ \hline 5.43 + 2.7 = 8.13 \end{array} $		2	9	3	1 3	8	2	-	1	8	2	5	0	1		1	1	1	8	8	1
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