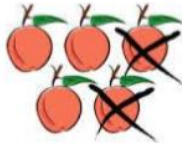

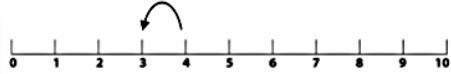



# Subtraction

Step 1	Examples	Step 2	Examples																																																																																			
<p><b>Concrete subtraction</b></p> <p>This step requires children to physically take away one or more objects from a set of objects.</p> <p>Children will also be encouraged to draw own representations of objects and cross out images to take away.</p> <p>Use of fingers is encouraged as this is a constantly available resource and can be used to count back from a given number.</p> <p>The number sentence should be related to the objects/pictures/fingers whenever possible.</p>	<p><math>5 - 2 = 3</math></p>  <p><math>5 - 1 = 4</math></p>  <p><math>5 - 1 = 4</math></p>	<p><b>Counting back on numbered number line</b></p> <p>This step requires the children to use a numbered number line to work out one less or several less.</p>	<p><math>4 - 1 = 3</math></p>  <p><math>8 - 3 = 5</math></p> 																																																																																			
Step 3	Examples	Step 4	Examples																																																																																			
<p><b>Expanded column method</b></p> <p>This step requires the children to partition the numbers and then subtract the lowest value digits first.</p> <p>It should be used to introduce the idea decomposition and exchanging.</p> <p>The method should be used for two and three digit numbers and can be extended to decimals.</p>	<p><math>77 - 24 = 53</math></p> <table style="margin-left: 20px;"> <tr><td>70</td><td>7</td></tr> <tr><td>- 20</td><td>4</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>50</td><td>3</td></tr> </table> <p><math>761 - 347 = 414</math></p> <table style="margin-left: 20px;"> <tr><td>700</td><td>60</td><td>1</td></tr> <tr><td>- 300</td><td>40</td><td>7</td></tr> <tr><td colspan="3"><hr/></td></tr> <tr><td>400</td><td>10</td><td>4</td></tr> </table> <p><b>An exchange is needed here:</b></p> <table style="margin-left: 20px;"> <tr><td>50</td></tr> <tr><td>700</td><td><del>60</del></td><td>11</td></tr> <tr><td>- 300</td><td>40</td><td>7</td></tr> <tr><td colspan="3"><hr/></td></tr> <tr><td>400</td><td>10</td><td>4</td></tr> </table>	70	7	- 20	4	<hr/>		50	3	700	60	1	- 300	40	7	<hr/>			400	10	4	50	700	<del>60</del>	11	- 300	40	7	<hr/>			400	10	4	<p><b>Short method (decomposition)</b></p> <p>This step requires the children to set the calculation out in a column (being careful to ensure correct place value) with the largest number on the top.</p> <p>They should subtract the right hand column first and exchange (borrow) from the left hand side if needed.</p> <p>This method can be used for any number of digits as we as decimals</p>	<p><math>537 - 214 = 323</math></p> <table style="margin-left: 20px;"> <tr><td>537</td></tr> <tr><td>- 214</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>323</td></tr> </table> <p><math>728 - 51 = 677</math></p> <table style="margin-left: 20px;"> <tr><td>6</td><td>1</td></tr> <tr><td>7</td><td>2</td><td>8</td></tr> <tr><td>-</td><td>5</td><td>1</td></tr> <tr><td colspan="3"><hr/></td></tr> <tr><td>6</td><td>7</td><td>7</td></tr> </table> <p><math>352 - 168 = 184</math></p> <table style="margin-left: 20px;"> <tr><td>3</td><td>5</td><td>2</td></tr> <tr><td>-</td><td>1</td><td>6</td><td>8</td></tr> <tr><td colspan="4"><hr/></td></tr> <tr><td>1</td><td>8</td><td>4</td></tr> </table> <table style="margin-left: 20px;"> <tr><td>4</td><td>2</td><td>4</td></tr> <tr><td>3</td><td>5</td><td>2</td></tr> <tr><td>-</td><td>1</td><td>6</td><td>8</td></tr> <tr><td colspan="4"><hr/></td></tr> <tr><td>1</td><td>8</td><td>4</td></tr> </table>	537	- 214	<hr/>		323	6	1	7	2	8	-	5	1	<hr/>			6	7	7	3	5	2	-	1	6	8	<hr/>				1	8	4	4	2	4	3	5	2	-	1	6	8	<hr/>				1	8	4
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