



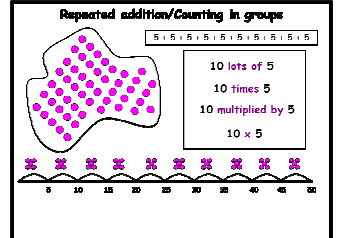
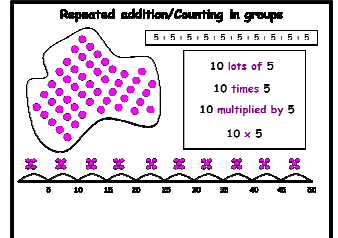
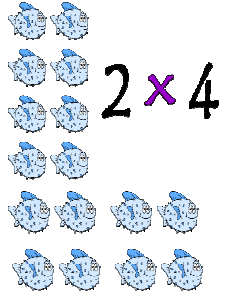
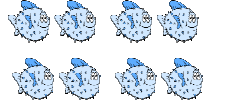
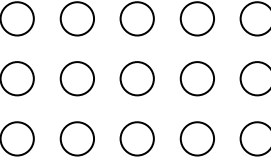

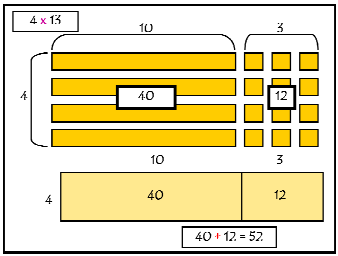


# Multiplication

<b>STEP 1</b> <b>*(YR, Y1)</b>	<b>STEP 2</b> <b>*(Y1, Y2)</b>	<b>STEP 3</b> <b>*(Y2, Y3)</b>	<b>STEP 4</b> <b>*(Y4)</b>	<b>STEP 5</b> <b>*(Y5, Y6)</b>
<p>Children will experience equal groups of objects and will count in 2s and 10s and begin to count in 5s. They will work on practical problem solving activities involving equal sets or groups.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">   <b>two</b>  <b>2</b> </div> <div style="text-align: center;">   <b>four</b>  <b>4</b> </div> <div style="text-align: center;">   <b>six</b>  <b>6</b> </div> </div> <div style="text-align: center; margin-top: 20px;">  </div> <p>Equal groups are counted out and placed on the number line to enhance the idea of repeated addition.</p> <div style="text-align: center; margin-top: 10px;">  </div> <p>Number sentences are used for simple problems as above.</p>	<p>Children will use repeated addition and number lines to show this happening.</p> <p>3 times 5 is <math>5 + 5 + 5 = 15</math> or 3 lots of 5 or <math>5 \times 3</math></p> <p>Repeated addition can be shown easily on a number line:</p> <p style="text-align: center;"><math>5 \times 3 = 5 + 5 + 5</math></p> <p>Equal groups are counted out and placed on the number line to enhance the idea of repeated addition.</p> <div style="text-align: center; margin-top: 10px;">  </div> <p>Number sentences are used for simple problems as above.</p>	<p>Work from the previous steps is reinforced whilst the idea of arrays is taught.</p> <div style="text-align: center; margin-top: 10px;">   <math>2 \times 4</math> </div> <div style="text-align: center; margin-top: 10px;">   <math>4 \times 2</math> </div> <p>This method builds with the use of arrays as dots and then the use of empty array squares as a precursor to the grid method.</p> <div style="text-align: center; margin-top: 10px;"> <math>3 \times 5 = 15</math>    <b>3</b> </div> <div style="text-align: center; margin-top: 10px;"> <math>5</math>    <b>3</b> </div> <div style="text-align: center; margin-top: 10px;"> <math>5</math> </div>	<p>Children continue to use arrays leading towards the grid method.</p> <div style="text-align: center; margin-top: 10px;">  </div> <p><b>TU x U</b> (Short multiplication - multiplication by a single digit) Children will approximate first <math>23 \times 8</math> is approximately 25 <math>8 \times 20 = 160</math></p> <div style="text-align: center; margin-top: 10px;"> <math>X \quad 20 \quad 3</math>  <math>8 \quad 160 \quad 24</math> </div> <p><math>160 + 24 = 184</math></p> <p>This method is extended to HTU x U and then TU X TU</p>	<p>The grid method is reinforced for larger multiplications.</p> <p>The compact vertical column method is used for smaller numbers.</p> <p>Compact written method: e.g. <math>38 \times 7 = 266</math></p> <p>In addition the Italian method can also be taught for use with larger numbers.</p> <p><b>*These are agreed starting points for different year groups NOT a must do list for each child. We move on when ready!</b></p>