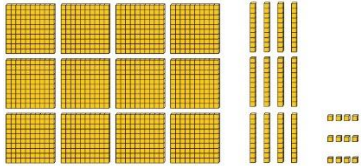
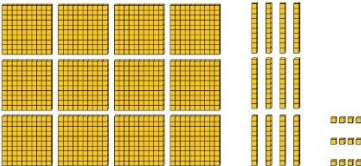

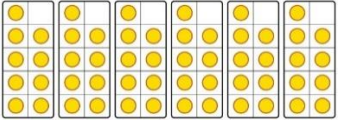
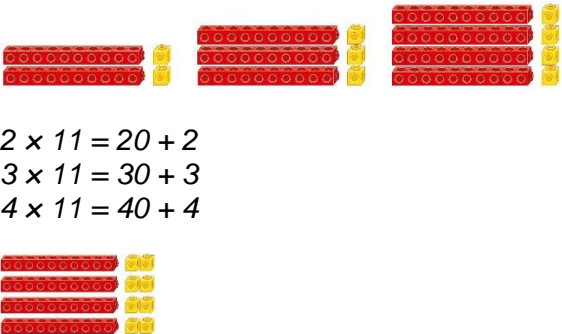
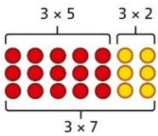
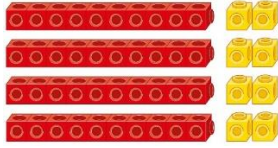
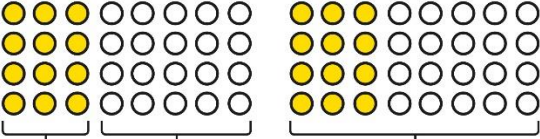
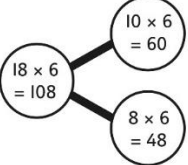
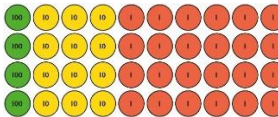
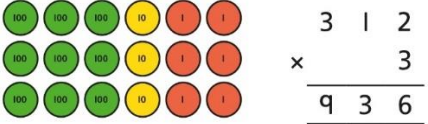
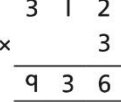
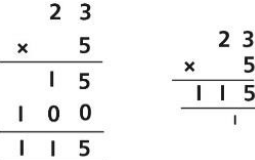


Year 4 Multiplication			
<p><b>Multiplying by multiples of 10 and 100</b></p>	<p>Use unitising and place value equipment to understand how to multiply by multiples of 1, 10 and 100.</p>  <p>3 groups of 4 ones is 12 ones. 3 groups of 4 tens is 12 tens. 3 groups of 4 hundreds is 12 hundreds.</p>	<p>Use unitising and place value equipment to understand how to multiply by multiples of 1, 10 and 100.</p>  <p><math>3 \times 4 = 12</math> <math>3 \times 40 = 120</math> <math>3 \times 400 = 1,200</math></p>	<p>Use known facts and understanding of place value and commutativity to multiply mentally.</p> <p><math>4 \times 7 = 28</math></p> <p><math>4 \times 70 = 280</math> <math>40 \times 7 = 280</math></p> <p><math>4 \times 700 = 2,800</math> <math>400 \times 7 = 2,800</math></p>
<p><b>Understanding times-tables up to <math>12 \times 12</math></b></p>	<p>Understand the special cases of multiplying by 1 and 0.</p>  <p><math>5 \times 1 = 5</math>                      <math>5 \times 0 = 0</math></p>	<p>Represent the relationship between the <math>\times 9</math> table and the <math>\times 10</math> table.</p>  <p>Represent the <math>\times 11</math> table and <math>\times 12</math> tables in relation to the <math>\times 10</math> table.</p>  <p><math>2 \times 11 = 20 + 2</math> <math>3 \times 11 = 30 + 3</math> <math>4 \times 11 = 40 + 4</math></p> <p><math>4 \times 12 = 40 + 8</math></p>	<p>Understand how times-tables relate to counting patterns.</p> <p>Understand links between the <math>\times 3</math> table, <math>\times 6</math> table and <math>\times 9</math> table <i>5 x 6 is double 5 x 3</i></p> <p><math>\times 5</math> table and <math>\times 6</math> table <i>I know that <math>7 \times 5 = 35</math> so I know that <math>7 \times 6 = 35 + 7</math>.</i></p> <p><math>\times 5</math> table and <math>\times 7</math> table <math>3 \times 7 = 3 \times 5 + 3 \times 2</math></p>  <p><math>\times 9</math> table and <math>\times 10</math> table <math>6 \times 10 = 60</math> <math>6 \times 9 = 60 - 6</math></p>

<p><b>Understanding and using partitioning in multiplication</b></p>	<p>Make multiplications by partitioning.</p> <p><math>4 \times 12</math> is 4 groups of 10 and 4 groups of 2.</p>  <p><math>4 \times 12 = 40 + 8</math></p>	<p>Understand how multiplication and partitioning are related through addition.</p>  <p><math>4 \times 3 = 12</math>  <math>4 \times 5 = 20</math>  <math>12 + 20 = 32</math></p> <p><math>4 \times 8 = 32</math></p>	<p>Use partitioning to multiply 2-digit numbers by a single digit.</p> <p><math>18 \times 6 = ?</math></p>  <p><math>18 \times 6 = 10 \times 6 + 8 \times 6</math>  <math>= 60 + 48</math>  <math>= 108</math></p> <p><math>18 \times 6 = 10 \times 6 + 8 \times 6</math>  <math>= 60 + 48</math>  <math>= 108</math></p>
<p><b>Column multiplication for 2- and 3-digit numbers multiplied by a single digit</b></p>	<p>Use place value equipment to make multiplications.</p> <p>Make <math>4 \times 136</math> using equipment.</p>  <p>I can work out how many 1s, 10s and 100s.</p> <p>There are <math>4 \times 6</math> ones... 24 ones          There are <math>4 \times 3</math> tens ... 12 tens          There are <math>4 \times 1</math> hundreds ... 4 hundreds</p> <p><math>24 + 120 + 400 = 544</math></p>	<p>Use place value equipment alongside a column method for multiplication of up to 3-digit numbers by a single digit.</p>  <p><math>312 \times 3 = 936</math></p>	<p>Use the formal column method for up to 3-digit numbers multiplied by a single digit.</p>  <p>Understand how the expanded column method is related to the formal column method and understand how any exchanges are related to place value at each stage of the calculation.</p> 

**Multiplying more than two numbers**

Represent situations by multiplying three numbers together.



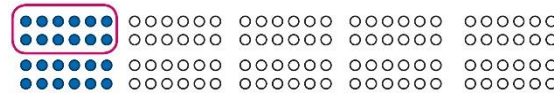
Each sheet has  $2 \times 5$  stickers.  
There are 3 sheets.

There are  $5 \times 2 \times 3$  stickers in total.

$$5 \times 2 \times 3 = 30$$

$$\underbrace{\hspace{2em}}_{10} \times 3 = 30$$

Understand that commutativity can be used to multiply in different orders.



$$2 \times 6 \times 10 = 120$$

$$12 \times 10 = 120$$

$$10 \times 6 \times 2 = 120$$

$$60 \times 2 = 120$$

Use knowledge of factors to simplify some multiplications.

$$24 \times 5 = 12 \times 2 \times 5$$

$$12 \times 2 \times 5 =$$

$$\underbrace{\hspace{2em}}_{12} \times 5 = 120$$

$$\text{So, } 24 \times 5 = 120$$