

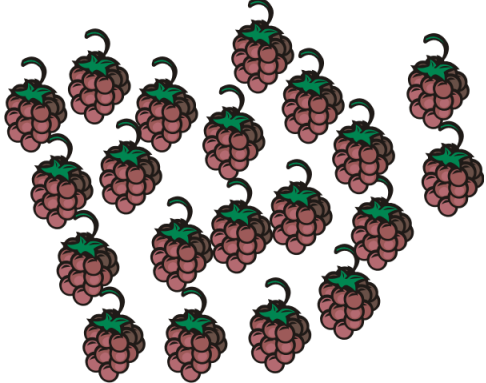
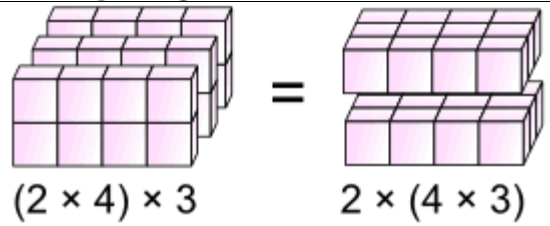
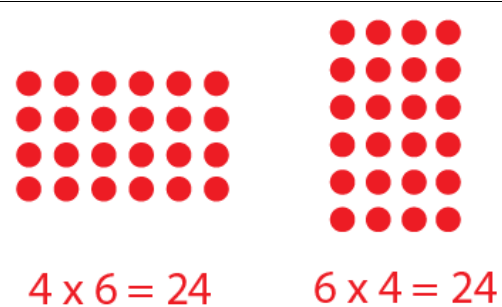



# **Featherstone Wood Primary School**

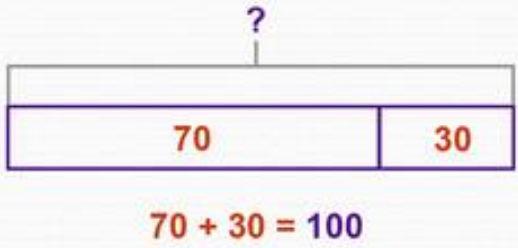
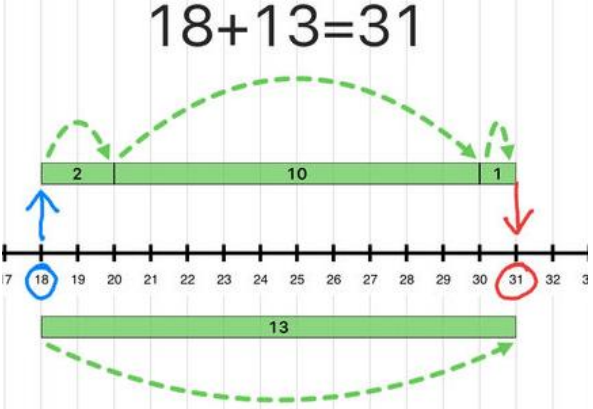
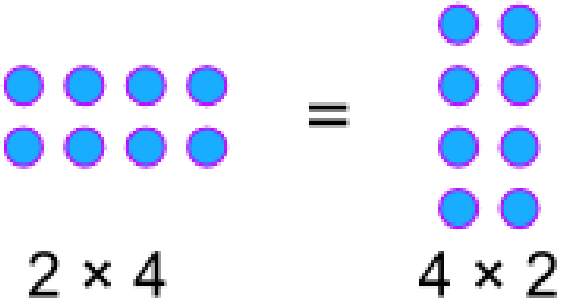
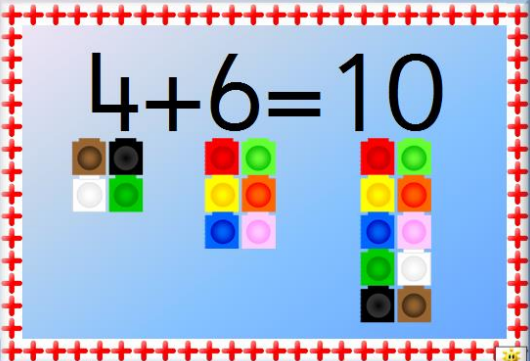
Mastery in Maths Glossary of Terms

January 2018

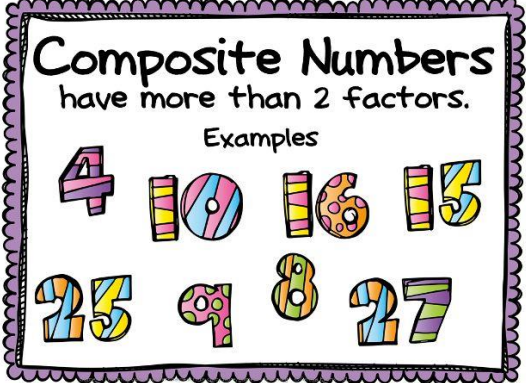
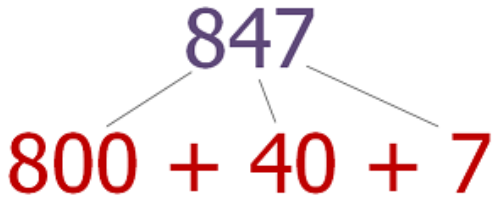


## Maths Mastery Glossary

Word	Definition	Picture
Addend	A number which is added to another.	<p style="text-align: center;"><b>Parts of Addition</b></p> <p style="text-align: center; font-size: 2em;"><b>2 + 3 = 5</b></p> <p style="text-align: center;"> <span style="margin-right: 100px;">↑</span> <span style="margin-right: 50px;">↑</span> <span>↑</span>            Addend                  Addend                  Sum or Total         </p>
Aggregation	A group of items.	
Associative law	<p>The "Associative Laws" say that it doesn't matter how we group the numbers (i.e. which we calculate first)</p> <p>Example addition: <math>(6 + 3) + 4 = 6 + (3 + 4)</math> Because <math>9 + 4 = 6 + 7 = 13</math></p> <p>Example multiplication: <math>(2 \times 4) \times 3 = 2 \times (4 \times 3)</math> <math>8 \times 3 = 2 \times 12 = 24</math></p>	 <p style="text-align: center;"><math>(2 \times 4) \times 3 = 2 \times (4 \times 3)</math></p>
Arrays	An arrangement of objects, pictures, or numbers in columns and rows is called an array. Arrays are useful representations of multiplication concepts.	 <p style="text-align: center;"><math>4 \times 6 = 24</math>                  <math>6 \times 4 = 24</math></p>
Augmentation	Counting on. Start at a number and count on.	 <p style="text-align: center; font-size: 1.5em;"><b>3 + 4 = <span style="border: 1px solid black; display: inline-block; width: 30px; height: 30px; vertical-align: middle;"></span></b></p>

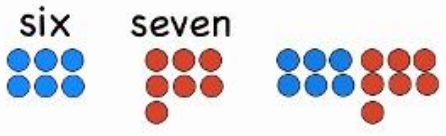
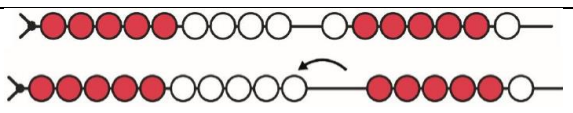
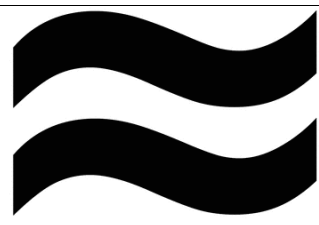
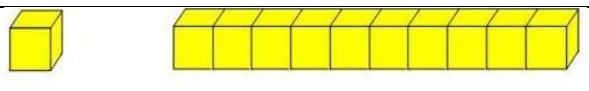
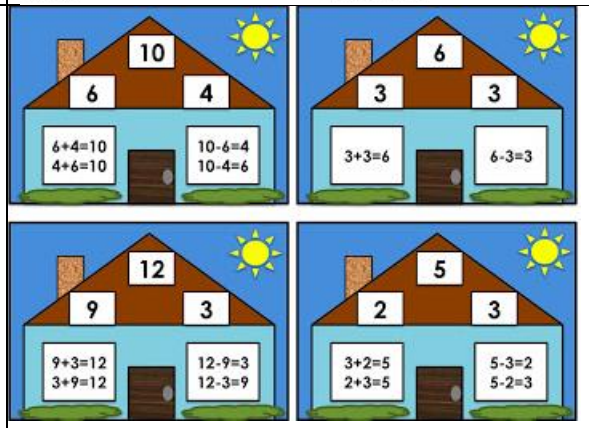
## Maths Mastery Glossary

<p><b>Bar model</b></p>	<p>Visual representation of a number using unit cubes, lines (of 10 cubes), sheets (of 100 cubes) and boxes (of 1000 cubes). Used in pictorial approach to solving addition and subtraction problems.</p>	
<p><b>Benchmarks</b></p>	<p>Are usually referred to with a number line. A benchmark is normally is the nearest 10 or 5.</p>	
<p><b>Commutatively</b></p>	<p>It does not matter which was round the calculation goes. Example: <math>2 + 4 = 6</math> <math>4 + 2 = 6</math></p>	
<p><b>Compensation</b></p>	<p>You take from one side of the calculation and give to the other to make the calculation quicker. Usually a mental calculation.</p>	<p><i>Example A</i></p> $\begin{array}{r} 36 + 17 \\ +4 \quad -4 \\ \hline 40 + 13 \\ \hline 53 \end{array}$
<p><b>Complements (number bonds)</b></p>	<p>Complements to 10 are two numbers which add up to 10.</p>	

## Maths Mastery Glossary

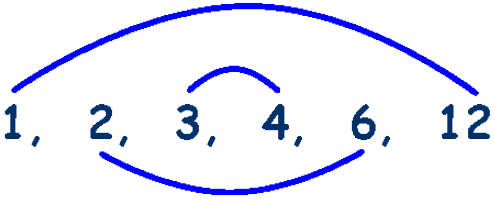
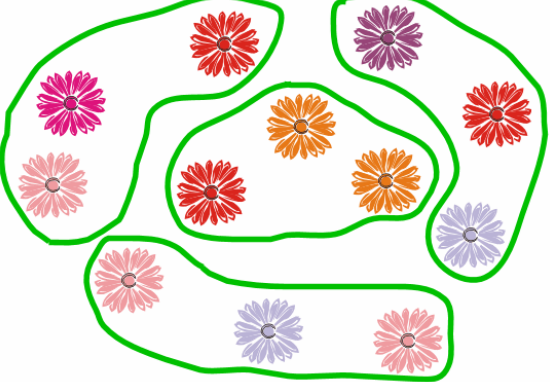
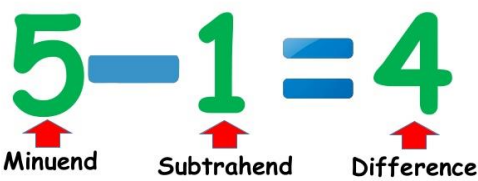
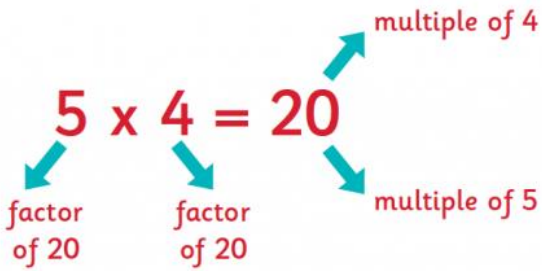
<p>Composite number</p>	<p>A whole number that can be divided evenly by numbers other than 1 or itself.</p>	 <p><b>Composite Numbers</b> have more than 2 factors. Examples 4, 10, 16, 15, 25, 9, 8, 27</p>
<p>Decomposition</p>	<p>Opposite of composition – breaking the number up usually by place value to add or subtract.</p>	 <p style="text-align: center;">847 800 + 40 + 7</p>
<p>Distributive law</p>	<p>The Distributive Law says that multiplying a number by a group of numbers added together is the same as doing each multiplication separately Example: <math>3 \times (2 + 4) = 3 \times 2 + 3 \times 4</math> So the "3" can be "distributed" across the "2+4" into 3 times 2 and 3 times 4.</p>	 <p style="text-align: center;"><math>3 \times (2+4) = 3 \times 2 + 3 \times 4</math></p>
<p>Divisibility rules</p>	<p>Rules which make it easier to know whether a number is a multiple or not.</p>	 <p style="text-align: center;"><b>Divisibility Rules</b></p> <ul style="list-style-type: none"> <li><math>\div 2</math>: The last digit is even (0,2,4,6,8)</li> <li><math>\div 3</math>: The sum of the digits is divisible by 3</li> <li><math>\div 4</math>: The last 2 digits are divisible by 4</li> <li><math>\div 5</math>: The last digit is 0 or 5</li> <li><math>\div 6</math>: The number is divisible by 2 and 3</li> <li><math>\div 7</math>: If you double the last digit and subtract it from the rest of the number and the answer is 0 or divisible by 7</li> <li><math>\div 8</math>: The last three digits are divisible by 8</li> <li><math>\div 9</math>: The sum of the digits is divisible by 9</li> <li><math>\div 10</math>: The number ends in 0</li> </ul>

## Maths Mastery Glossary

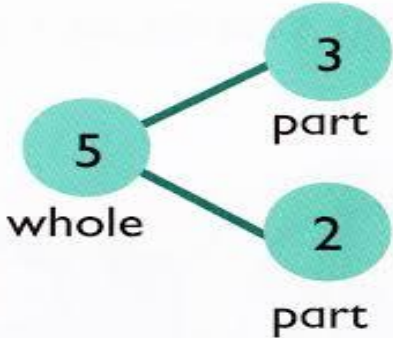
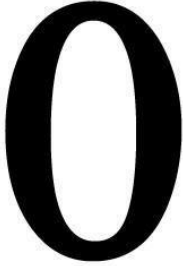
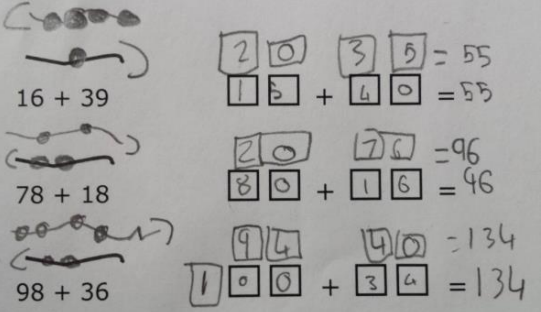
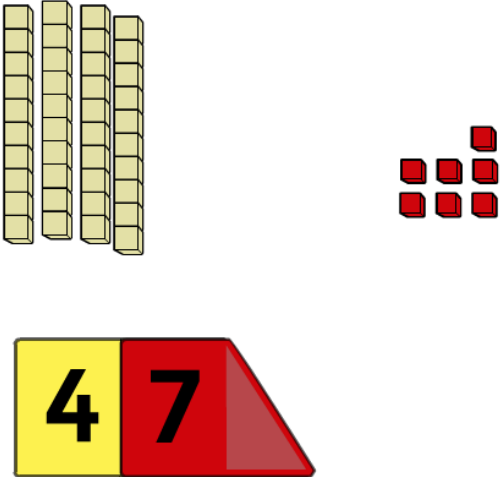
<p>Doubles / near doubles</p>	<p>Adding (or subtracting) two of the same number then counting on or back. For example:  <math>6 + 7 =</math>  <math>6 + 6 = 12 + 1 = 13</math></p>	<p style="text-align: center;"><b>6 + 7 = 13</b></p> <p style="text-align: center;"> <span style="margin-right: 20px;">six</span> <span>seven</span> </p> 
<p>Equal difference</p>	<p>Used in subtraction only. When you subtract an amount from both sides of a calculation to make the subtraction easier.</p>	<p style="text-align: center;"> <math>\begin{array}{r} -3 \quad -3 \\ 28 - 13 = 25 - 10 \end{array}</math> </p> <p style="text-align: center;"> <math>\begin{array}{r} +2 \quad +2 \\ 28 - 13 = 30 - 15 \end{array}</math> </p>
<p>Equal sum</p>	<p>Equal sum is used in addition. It is an extension of compensation. It exploits pupils knowledge of bonds to ten and complements to 100.</p>	
<p>Equal to (approximately equal to )</p>	<p>Used when rounding or estimating instead on = symbol</p>	
<p>Exchanging</p>	<p>Previously referred to as borrowing. Changing ten ones for one ten rod.</p>	 <p style="text-align: center;">one <span style="margin-left: 100px;">ten rod</span></p>
<p>Fact families</p>	<p>Fact Families are sets of three numbers that can be added and. subtracted or divided and multiply together and they help develop the understanding of the relationship between addition and subtraction or multiplication and division.</p>	



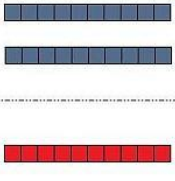
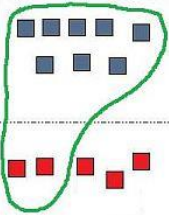
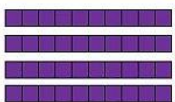

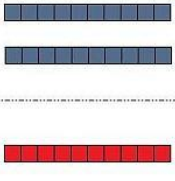
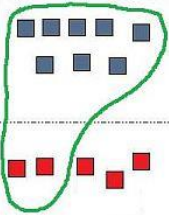
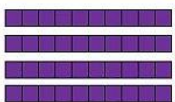

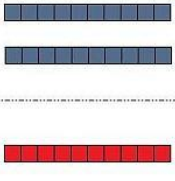
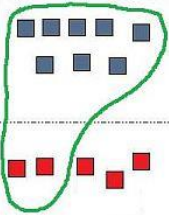
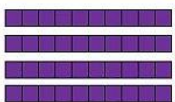

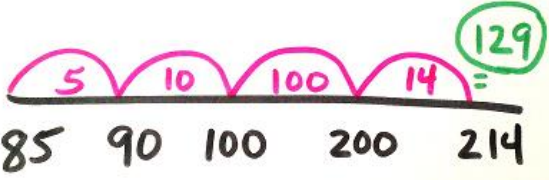
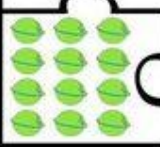


## Maths Mastery Glossary

<p>Factors</p>	<p>"Factors" are the numbers you multiply to get another number.</p>	<p style="text-align: center;"><b>Factors of 12</b></p> 
<p>Grouping</p>	<p>Division is splitting into equal parts or groups.</p> <p>Putting the flowers into groups of three.</p>	
<p>Minuend</p>	<p>A quantity or number from which another is to be subtracted.</p>	<p style="text-align: center;"><b>Parts of Subtraction</b></p> 
<p>Multiples</p>	<p>A number that may be divided by another a certain number of times without a remainder.</p>	
<p>Partitioning</p>	<p>Similar to decomposition. Splitting the number up based on its place value.</p>	<div style="border: 1px solid orange; padding: 10px;"> <p style="text-align: center;"><b>Partitioning method</b></p> <p style="text-align: center;"><math>500 + 100 = 600</math></p> <p style="text-align: center;"><math>60 + 90 = 150</math></p> <p style="text-align: center;"><math>7 + 9 = 16</math></p> <p style="text-align: center;"><math>600 + 150 + 16 = 766</math></p> </div>

## Maths Mastery Glossary

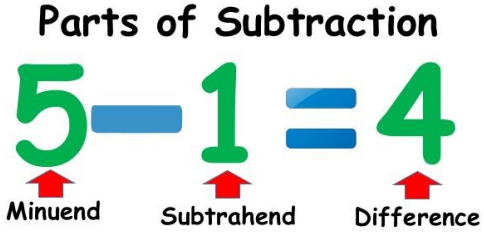
<p>Part part whole model (Cherry model)</p>	<p>A diagram to show different ways a whole number can be split into two parts.</p>	
<p>Place value holders</p>	<p>Zero as a place holder. In our place value number system, zero is used to represent an empty column.</p>	
<p>Rebalancing</p>	<p>Balancing out both sides of a calculation.</p>	
<p>Recombining</p>	<p>When you have split a number up before calculating then combining again at the end. For example:  <math>23 + 34 =</math>  <math>20 + 30 = 50</math>  <math>3 + 4 = 7</math>  <math>50 + 7 = 57</math></p>	

## Maths Mastery Glossary

<p>Regrouping</p>	<p>Regrouping in math is a term used to describe the process of changing groups of ones into tens to make adding and subtracting easier.</p>	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 30%;">Tens</th> <th style="width: 50%;">Ones</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: middle;"> <math>28</math> + <math>15</math> </td> <td>  </td> <td>  </td> </tr> <tr> <td style="vertical-align: middle;"><math>43</math></td> <td>  </td> <td>  </td> </tr> </tbody> </table>		Tens	Ones	$28$ + $15$			$43$		
	Tens	Ones									
$28$ + $15$											
$43$											
<p>Reordering</p>	<p>Changing around a calculation so that it makes it easier to answer. This could be changing the calculation from <math>-</math> to <math>+</math>.</p>	<p style="text-align: center;"><math>214 - 85</math></p> 									
<p>Repeated addition</p>	<p>Adding the same number again and again in order to find the answer to a multiplication problem.</p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;"><math>3 + 3 + 3 + 3</math></p>  <p style="text-align: center;"><math>4 \times 3</math></p> </div> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><math>2 + 2</math></p>  <p style="text-align: center;"><math>2 \times 2</math></p> </div>									
<p>Sharing</p>	<p>Having a certain amount (15 sweets) and splitting them between an amount (3)</p>	 <p style="text-align: center;"><math>7 \div 2 = 3 \text{ R } 1</math></p> <p style="text-align: right;">← Remainder</p>									



## Maths Mastery Glossary

Subtrahead	A quantity or number to be subtracted from another.	<p><b>Parts of Subtraction</b></p>  <p>Minuend      Subtrahend      Difference</p>
Subsidising	Subsidising refers to immediately knowing how many items lie within a visual scene for a small number of items. It is to have a rapid and confident judgement to know at a glance and without counting to identify the number of items in a group	