
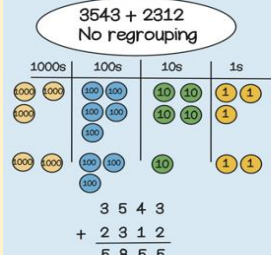
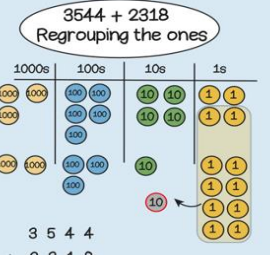
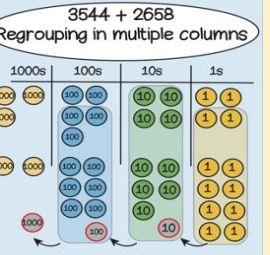

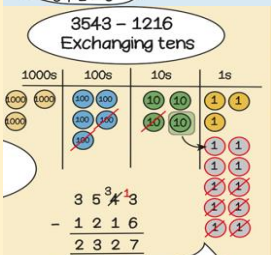
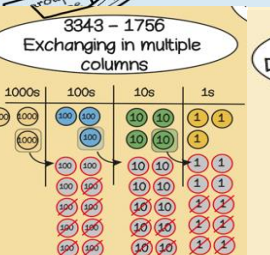
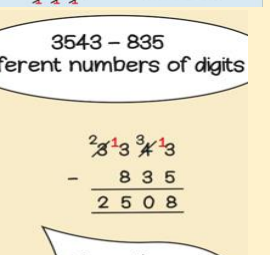


# Year 4, Term 3 Knowledge Organiser for Multiplication and Division and Addition and Subtraction.

Multiplication and Division		Addition and Subtraction																																					
<p><b>Manipulatives and strategies</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>You Can Do all the multiplication facts of 11.</p> <p>If I know... then I also know...</p> <p>If the digits are the same then a 2-digit number is divisible by 11.</p> <p>An odd number multiplied by 11 gives an odd product.</p> </div> <div style="width: 45%;"> <p><math>12 \times 6 = 72</math>      <math>6 \times 12 = 72</math></p> <p><math>72 = 12 \times 6</math>      <math>72 = 6 \times 12</math></p> <p><math>72 \div 12 = 6</math>      <math>72 \div 6 = 12</math></p> <p><math>6 = 72 \div 12</math>      <math>12 = 72 \div 6</math></p> <p>If I know... then I also know...</p> <p><math>5 \times 2 \times 6 = 60 = 6 \times 2 \times 5</math></p> <p><math>5 \times 2 \times 6 = 10 \times 6 = 60</math></p> <p><math>5 \times 2 \times 6 = 5 \times 12 = 60</math></p> <p><math>5 \times 2 \times 6 = 2 \times 30 = 60</math></p> </div> </div>		<p><b>Manipulatives and strategies</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>3543 + 2312 No regrouping</p>  <p>3 5 4 3 + 2 3 1 2 ----- 5 8 5 5</p> <p>3 + 2 = 5 4 + 1 = 5 5 + 3 = 8 3 + 2 = 5</p> </div> <div style="width: 30%;"> <p>3544 + 2318 Regrouping the ones</p>  <p>3 5 4 4 + 2 3 1 8 ----- 5 8 6 2</p> <p>Regroup the 12 ones into 1 ten and 2 ones</p> </div> <div style="width: 30%;"> <p>3544 + 2658 Regrouping in multiple columns</p>  <p>3 5 4 4 + 2 6 5 8 ----- 6 2 0 2</p> <p>If the column sum is equal to ten or more, we must regroup.</p> </div> </div>																																					
 <p>You Can Do all the multiplication facts of 12.</p> <p>multiple factor product</p> <p>A number is divisible by 12 if it is divisible by 3 and 4.</p> <p>All multiples of 12 are even numbers.</p>		<p>3543 - 1216 Exchanging tens</p>  <p>3 5 <sup>3</sup> 3 - 1 2 1 6 ----- 2 3 2 7</p> <p>If the ones digit in the minuend is less than the ones digit in the subtrahend, I need to exchange 1 ten for 10 ones.</p>																																					
<p>3343 - 1756 Exchanging in multiple columns</p>  <p>3 3 4 3 - 1 7 5 6 ----- 1 5 8 7</p>		<p>3543 - 835 Different numbers of digits</p>  <p>3 5 4 3 - 8 3 5 ----- 2 5 0 8</p> <p>Line up the ones with the ones, the tens with the tens.</p>																																					
<p><b>Vocabulary and meanings</b></p> <table border="1"> <tr> <td><b>Digit/numerals</b></td> <td>A single number to represent values in mathematics</td> </tr> <tr> <td><b>zero</b></td> <td>Holds a place in a number or represents nothing.</td> </tr> <tr> <td><b>odd</b></td> <td>A number that is NOT divisible by 2.</td> </tr> <tr> <td><b>even</b></td> <td>A number that IS divisible by 2.</td> </tr> <tr> <td><b>factor</b></td> <td>A number that times by another number for an answer (product).</td> </tr> <tr> <td><b>product</b></td> <td>The result (answer) when you multiply 2 numbers (factors) together.</td> </tr> <tr> <td><b>multiple</b></td> <td>A product (answer that is part of a times table (where the same number is repeatedly added).</td> </tr> <tr> <td><b>divisible</b></td> <td>Numbers that divide a number equally with no remainder.</td> </tr> <tr> <td><b>commutative</b></td> <td>When 2 numbers can be added or multiplied &amp; the same answer will be found no matter what order the numbers are in.</td> </tr> </table>		<b>Digit/numerals</b>	A single number to represent values in mathematics	<b>zero</b>	Holds a place in a number or represents nothing.	<b>odd</b>	A number that is NOT divisible by 2.	<b>even</b>	A number that IS divisible by 2.	<b>factor</b>	A number that times by another number for an answer (product).	<b>product</b>	The result (answer) when you multiply 2 numbers (factors) together.	<b>multiple</b>	A product (answer that is part of a times table (where the same number is repeatedly added).	<b>divisible</b>	Numbers that divide a number equally with no remainder.	<b>commutative</b>	When 2 numbers can be added or multiplied & the same answer will be found no matter what order the numbers are in.	<p><b>Vocabulary and meanings</b></p> <table border="1"> <tr> <td><b>ones</b></td> <td>1-digit number = 1 - 9</td> </tr> <tr> <td><b>tens</b></td> <td>2-digit numbers = 10 - 99</td> </tr> <tr> <td><b>hundreds</b></td> <td>3-digit numbers = 100 - 999</td> </tr> <tr> <td><b>thousands</b></td> <td>4-digit numbers = 1000 - 9999</td> </tr> <tr> <td><b>sum</b></td> <td>The answer when adding numbers together.</td> </tr> <tr> <td><b>regroup (add)</b></td> <td>When you regroup 10 in the ones column is 1 in the tens column.</td> </tr> <tr> <td><b>Exchange (subtract)</b></td> <td>When you exchange a 10 from the tens column to 10 ones in the ones column.</td> </tr> <tr> <td><b>Minuend (subtract)</b></td> <td>The number in a subtraction sentence from which we subtract another number.</td> </tr> <tr> <td><b>Subtrahend (subtract)</b></td> <td>The number being subtracted from another number.</td> </tr> </table>		<b>ones</b>	1-digit number = 1 - 9	<b>tens</b>	2-digit numbers = 10 - 99	<b>hundreds</b>	3-digit numbers = 100 - 999	<b>thousands</b>	4-digit numbers = 1000 - 9999	<b>sum</b>	The answer when adding numbers together.	<b>regroup (add)</b>	When you regroup 10 in the ones column is 1 in the tens column.	<b>Exchange (subtract)</b>	When you exchange a 10 from the tens column to 10 ones in the ones column.	<b>Minuend (subtract)</b>	The number in a subtraction sentence from which we subtract another number.	<b>Subtrahend (subtract)</b>	The number being subtracted from another number.
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