

Weekly Maths Planning Sheet Week Beg: 19/10/20				Focus: Arithmetic focus Division	Key Vocab: calculate mentally formal method column method integer decimal add, plus, sum, total subtract, take away, difference multiply, product represent estimate round approximate formula term
Learning Objectives	Main Teaching	Representing (Showing)	Fluency (Practising)	Probing Questions (Explaining)	Rich and Complex Tasks (Solving)
1. Divide a 3/4-digit number by a 1-digit number using a written method  X2 sessions for some	What is dividing? What is meant by the term divide? How can we explain what we are doing to a number when we are dividing? Recap the bus stop method - most will have done this in year 5 - using the interactive whiteboard model 3 and 4 digit numbers divided by 1.  <u>Model</u> <ul style="list-style-type: none"> <li>no exchange necessary e.g. <math>9366 \div 3</math></li> <li>first digit is lower than divisor requiring exchange e.g. <math>2196 \div 3</math></li> <li>single exchange e.g. <math>2376 \div 3</math> or <math>8476 \div 4</math></li> <li>two or more exchanges e.g. <math>4185 \div 5</math></li> <li>examples with remainders e.g. <math>4189 \div 5</math></li> </ul>		Same progression as modelled set of division calculations  $8842 \div 2$ $3248 \div 4$ $5766 \div 6$ $2877 \div 3$ $8476 \div 4$ $4185 \div 5$ $4279 \div 5$ $9759 \div 7$  Over into a second session due to inaccuracy $9366 \div 3$ $4848 \div 4$ $2196 \div 3$ $4505 \div 5$ $2376 \div 3$ $6472 \div 8$ $3792 \div 4$ $9856 \div 8$ $4189 \div 5$ $7399 \div 4$  LA - working on dividing by 2, 3 and 5 Sharing with the use of objects	Convince me $1756 \div 5$ will have a remainder of 1	

<p>2. Divide a 3-digit number by 2-digit number using a formal written method</p>	<p><b>Model</b></p> <ul style="list-style-type: none"> <li>• known times table, no remainder e.g. <math>756 \div 12</math></li> <li>• simple times table to derive, no remainder e.g. <math>966 \div 21</math></li> <li>• larger number requiring derivation of times table, no remainder <math>986 \div 34</math></li> <li>• examples with remainders e.g. <math>874 \div 15</math></li> </ul>		<p>Same progression as modelled set of division calculations</p> <p>Have divisions within the 12 x table in case</p> <p><math>920 \div 10</math>  <math>612 \div 12</math>  <math>864 \div 24</math>  <math>945 \div 21</math>  <math>468 \div 36</math>  <math>672 \div 42</math>  <math>864 \div 15</math>  <math>923 \div 23</math>  <math>328 \div 32</math></p> <p>LA - working on dividing by 2, 3 and 5  Sharing with remainders</p>	<p>Convince me <math>598 \div 26 = 23</math></p>	
<p>3. Divide a 4-digit number by a 2-digit number using a formal written method</p> <p>X2 sessions needed</p>	<p><b>Model</b></p> <ul style="list-style-type: none"> <li>• known times table, no remainder e.g. <math>2856 \div 12</math></li> <li>• simple times table to derive, no remainder e.g. <math>6594 \div 21</math></li> <li>• larger number requiring derivation of times table, no remainder <math>3591 \div 57</math></li> <li>• examples with remainders e.g. <math>4588 \div 16</math></li> </ul> <p>Taking two sessions</p>		<p>Some children staying within their times tables, so they are still dividing using the formal method</p> <p><math>1140 \div 12</math>  <math>1188 \div 12</math>  <math>1320 \div 12</math>  <math>2136 \div 12</math>  <math>3568 \div 12</math>  <math>4738 \div 12</math>  <math>9635 \div 12</math></p> <p>Majority - those accurate with x12 to progress to these calculations</p> <p><math>1140 \div 12</math>  <math>1001 \div 11</math>  <math>1365 \div 21</math></p>	<p>Convince me that <math>6279 \div 23 = 273</math></p> <p>Always, Sometimes, Never?  Long division is needed to divide a four digit number by a two digit number</p>	

			$1\ 056 \div 22$ $1\ 120 \div 14$ $4\ 788 \div 57$ $3\ 366 \div 34$ $5\ 269 \div 27$ $6\ 917 \div 46$ $9\ 308 \div 25$  LA - working on dividing by 2, 3 and 5 Bus stop method		
4. Divide a 4-digit number by a 2-digit number using a formal written method giving the remainder as a fraction	Continue after half term <ul style="list-style-type: none"> <li>known times table, no remainder e.g. <math>2857 \div 12</math></li> <li>simple times table to derive, no remainder e.g. <math>6597 \div 21</math></li> <li>larger number requiring derivation of times table, no remainder <math>3541 \div 57</math></li> </ul>	Using place value counters to complete the division practically. When the final remaining units are separated, using bar to represent how much of a full divisor they are. When dividing by 12 and having a remaining 5 ones, this represents or $5/12$ of a whole column  	$4637 \div 12$ $2398 \div 12$ $5437 \div 12$ $3928 \div 12$ $1965 \div 21$ $2130 \div 29$ $9822 \div 34$	Convince me that if I divide 132 sweets between 5 people, this gives 26 r2 or $26 \frac{2}{5}$ each.	

<p>5. Divide a 4-digit number by a 2-digit number, giving an answer to up to 2dp, using a formal written method</p>	<p>Divide a 4-digit number by a 2-digit number, giving an answer to up to 2dp, using a formal written method</p> <ul style="list-style-type: none"> <li>example resulting in exactly 1dp e.g. <math>4580 \div 16</math></li> <li>example resulting in exactly 2dp e.g. <math>4576 \div 16</math></li> <li>example resulting in longer decimal (requiring truncation) e.g. <math>4579 \div 16</math></li> </ul>		<p>Answer to one decimal place  <math>3928 \div 11</math>  <math>1965 \div 23</math></p> <p>Answer to two decimal places  <math>2130 \div 29</math>  <math>9822 \div 34</math>  <math>9144 \div 29</math></p>	<p>Convince me that <math>6143 \div 11 = 558.45</math> to 2 decimal places.</p>																						
<p>6. Recognise and solve a simple division problem, interpreting any remainders in the context as appropriate.</p>	<p>Using the bar model to represent a word or other division problem. For example: 6 people share £1764 equally between them. How much do they each receive?</p> <table border="1" data-bbox="546 895 775 946"> <tr> <td colspan="6">1764</td> </tr> <tr> <td>294</td> <td>294</td> <td>294</td> <td>294</td> <td>294</td> <td>294</td> </tr> </table>	1764						294	294	294	294	294	294	<p>Keeping with the use of bar models</p> <p>Remainder problems - an account has £9542 in it. If you spend £86 per day, after how many days will the money run out?</p> <p>word problem - sharing language e.g. 3282g flour to make 56 cupcakes. How much flour is in each cupcake?</p> <p>word problem - grouping language e.g. 2543 people go to Wembley. 52</p>	<table border="1"> <tbody> <tr> <td data-bbox="1122 703 1256 868"> <p>Felt tips are sold in packs of 12. How many packets can be made up from 152 felt tips?</p>  </td> <td data-bbox="1256 703 1391 868"> <p>A coach is travelling from High Wycombe to Rome. The distance is 3931km. The drive takes 13 days. How far did he drive each day?</p>  </td> <td data-bbox="1391 703 1525 868"> <p>There are 13 players in a rugby team. How many teams could you form from 205 players?</p>  </td> </tr> <tr> <td data-bbox="1122 884 1256 1048"> <p>Matches are sold in boxes of 18. How many boxes can be filled from 3840 matches?</p>  </td> <td data-bbox="1256 884 1391 1048"> <p>There are 25 milk cartons in each pack. A school needs 2635 cartons. How many packs does it need to order?</p>  </td> <td data-bbox="1391 884 1525 1048"> <p>A shop has a piece of ribbon that is 2684cm long. They need to divide the ribbon into 14 equal pieces. How long will each piece of ribbon be?</p>  </td> </tr> <tr> <td data-bbox="1122 1064 1256 1212"> <p>A school has raised £1478 for charity. They share the money equally between 12 charities. How much money will each charity receive?</p>  </td> <td data-bbox="1256 1064 1391 1212"> <p>A school hall can fit 28 chairs in one row. How many rows are needed to seat 1460 parents?</p>  </td> <td data-bbox="1391 1064 1525 1212"> <p>How many 350g jars are needed to store 5kg of marmalade?</p>  </td> </tr> </tbody> </table> <p>Making the decision whether the remainder needs to be rounded up,</p>	<p>Felt tips are sold in packs of 12. How many packets can be made up from 152 felt tips?</p> 	<p>A coach is travelling from High Wycombe to Rome. The distance is 3931km. The drive takes 13 days. How far did he drive each day?</p> 	<p>There are 13 players in a rugby team. How many teams could you form from 205 players?</p> 	<p>Matches are sold in boxes of 18. How many boxes can be filled from 3840 matches?</p> 	<p>There are 25 milk cartons in each pack. A school needs 2635 cartons. How many packs does it need to order?</p> 	<p>A shop has a piece of ribbon that is 2684cm long. They need to divide the ribbon into 14 equal pieces. How long will each piece of ribbon be?</p> 	<p>A school has raised £1478 for charity. They share the money equally between 12 charities. How much money will each charity receive?</p> 	<p>A school hall can fit 28 chairs in one row. How many rows are needed to seat 1460 parents?</p> 	<p>How many 350g jars are needed to store 5kg of marmalade?</p> 	<p>Convince me that a remainder of 5 can mean different things in different questions</p>	
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		people can fit on each bus. What is the minimum number of buses required?	done, expressed as a fraction or a decimal		
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