

Year group/class: 6	M / O starter	LO and SC (First LO to be revisited content and include LO for below ARE pupils)	Main teaching activities	Independent / Group Activities (Remember if correct, no more than 3 questions at same level)				Plenary
				D	C	B	A	
Monday	Place some decimal rule pattern problems on the IWB for chn to attempt to solve – place 3 or 4 differentiated patterns on the board for chn to discuss and attempt to calculate. Discuss Q1 from 2018 paper 3 as a class.	<p>New concept <b>Y</b>/N</p> <p>LO: Multiply numbers with up to 4 digits and decimal places by a 2-digit number using a formal written method of multiplication</p> <p>1) Multiply numbers with up to 4 digits by a 1 digit number 2) Multiply numbers with up to 4 digit by a 2-digit number <b>3) Multiply numbers with decimal places by a 2-digit number below 30</b></p> <p><b>SC 3 – New level of concept</b></p>	<p>Re-cap learning from previous multiplication lessons: discuss as a class how to accurately calculate numbers with up to 4 digits by numbers with up to 2-digits below 30. CT to model expanded vertical method and compact method whilst multiplying in multiples of 10 but encourage chn to use compact method and to multiply by multiples of 10 for speed during SATs assessments. Then discuss a 4-digit number by a 2-digit number above 30 to re-cap using the distributive law and the formal written method of long multiplication for these questions. Then place a question that involves multiplying a number with 1 decimal place and then 2 decimal places by a 2-digit number below 30. CT to model that methods remain exactly the same when multiplying numbers with decimal places but digits must be accurately aligned. Before chn begin task, discuss how a 3-digit or 4-digit number can be multiplied by a 3-digit number. Explain that similar methods can be used except multiply by numbers of 100 first, then by multiples of 10 and then multiply by the remaining number of ones. At tables, chn will be given multiplication statements to attempt in their maths books. CT to support any chn with misconceptions from previous 2 lessons.</p>	<p>Begin with concrete resources and multiplying a 1-digit number by another. Then progress onto multiplying 1-digit numbers by 2-digit numbers. Progress onto written methods if confident with resources.</p>	<p>3 questions that involve multiplying 3 or 4-digit numbers by a 1-digit number, then 3 questions that involve multiplying 3 or 4-digit numbers by 1 or 2-digit numbers below 30.</p>	<p>3 questions that involve multiplying 4-digit numbers by numbers with up to 3 digits (2-digit numbers below 30), then 3 questions that involve multiplying numbers with up to 4 digits with a decimal place by 2-digit numbers below 30.</p>	<p>3 questions that involve multiplying numbers with up to 4-digits and 1 decimal place by numbers with up to 3 digits (2-digit numbers below 30), then 3 questions multiplying numbers with up to 4 digits and varying decimal places by 2-digit numbers above 30.</p>	<p>Discuss some of the HA questions – discuss a question that involves multiplying a number with 1 decimal place and then 2 decimal places by a 2-digit number below 30. Then discuss the missing number mastery activity with chn afterwards.</p>
				<p><b>Mastery Activity:</b> Word problems from Thursday last week if not completed, If completed, chn will be provided with formal multiplication problems with missing numbers and have to attempt to add in the missing numbers. Chn can write a problem for their partner if they finish.</p>				

<p>Tuesday</p>	<p>Calculating percentages - provide one example where chn could fine one percent then multiply i.e. 32% of 1,600 and provide one example to tackle process driven issues i.e. 98% of 400.</p>	<p>New concept <b>Y</b>/N LO: Multiply numbers with up to 4 digits and decimal places by a 2-digit number using a formal written method of multiplication</p> <p>1) Multiply numbers with up to 4 digits by a 1 or 2-digit number 2) Multiply numbers with decimal places by a 2-digit number below 30 3) Multiply numbers with decimal places by a 2-digit number above 30</p> <p><b>SC 3 - New level of concept</b></p>	<p>Re-cap learning from previous lessons by discussing how to solve questions that involve multiplying numbers with up to 4 digits by numbers with up to 2-digits below 30 and then above 30 using the distributive law or the formal written method of long multiplication. Then discuss questions that involve multiplying a number with decimal places by a 2-digit number below 30. Ask chn to calculate these questions onto a WOWO board to begin with so CT can establish who will require further support during the lesson. Before beginning today's task, re-cap and model how to accurately multiply numbers with varying decimal places by 2-digit numbers above 30 and then model how to calculate multiplying 3-digit numbers by another 3-digit number. Before beginning task, discuss and model how to calculate balancing questions from today's extension questions. CT to support any chn with lack of understanding during previous lessons.</p>	<p>Chn continue with differentiated levels of questioning from yesterday's lesson. Before continuing, chn correct any mistakes or errors from yesterday's lesson and then progress onto the next differentiated task.</p>				<p>Discuss question 3 together as a class and different methods – could use distributive law or multiply by 100 then subtract 1 lot. Then discuss the balancing questions from today's extension together.</p>
<p>Wednesday</p>	<p>Re-cap calculating intervals across zero. Provide an example that remains in single digits then provide a 2-digit question. Remind chn to calculate the difference to find the answer.</p>	<p>New concept <b>Y</b>/N LO: Divide numbers with up to 4 digits by numbers with up to 2 digits using a formal written method of division</p> <p>1) Accurately divide numbers with up to 3 digits by a 1 or 2-digit number 2) Accurately divide numbers with up to 4 digits by a 1 or 2-digit number 3) Accurately divide numbers with up to 4 digits by a 1 and 2-digit number</p> <p><b>SC 3 - New level of concept</b></p>	<p>Re-cap multiplying numbers by 10 or 100 with chn and then place a division statement on the board that involves dividing a 3-digit number by a 1-digit number and then a 3-digit number by a 2-digit number. Ask chn to explain how they would calculate them to begin with to gauge initial understanding and then CT to model long division when dividing by a 2-digit number and short division when dividing by a 1-digit number. Place 2 questions on the board that involve dividing a 4-digit number by a 1-digit number and a 2-digit number and ask pupils to attempt them onto WOWO boards first before discussing them as a class to establish who may need further support in the lesson. CT to emphasise that when a quick easy step isn't apparent straight away e.g. multiplying by 10 or 100, chn should perform a quick multiplication to find the next multiple to subtract. Discuss a couple of previous SATs questions with chn before beginning task. At tables, chn will calculate given division statements at their tables.</p>	<p>Begin on 2-digit numbers divided by 1 digit numbers. Objects to support if needed.</p>	<p>Questions that involve dividing a 3-digit number by a 1 or 2-digit number. Answers will not contain remainders and will be higher and close to multiples of 10 or 100 for long division.</p>	<p>Questions that involve dividing a 4-digit number by a 1 or 2-digit number. Answers will contain remainders and will be higher than multiples of 10 or 100 for long division.</p>	<p>Questions that involve dividing a 4-digit number by a 1 or 2-digit number. Answers will contain remainders and can be lower than multiples of 10 or 100 for long division.</p>	<p>Discuss Q5 from MA set of questions and Q1 from HA set of questions with chn – chn often have misconceptions with this type of question and then discuss and attempt to solve one of the mastery word problems.</p>
<p><b>Mastery Activity - Mixed operation word problems:</b> Chn will be given word problems to attempt to solve that contain mixed operations i.e. Q12 summer termly check.</p>								

Subject Planning: Maths

Week beginning: 05/10/2020

Multiplication and division: Week 3

<p>Thursday</p>	<p>Times table starter with the 9 times tables. CT to encourage pupils to recall facts that they know to support with others i.e. <math>2 \times 9 = 18</math>, therefore <math>4 \times 9 = 36</math>. Then solve a short division question dividing by 9.</p>	<p>New concept <b>Y/N</b></p> <p>LO: Divide numbers with up to 4 digits by numbers with up to 2 digits using a formal written method of division</p> <p>1) Accurately divide numbers with up to 4 digits by a 1 or 2-digit number 2) Accurately divide numbers with up to 4 digits by a 1 and 2-digit number <b>3)</b> <b>Accurately calculate balancing statements involving division</b></p> <p><b>SC 3 – New level of concept</b></p>	<p>Re-cap multiplying numbers by 10 and 100 with chn at the start of the lesson and then re-cap learning from yesterday's lesson by placing a question that involves dividing a 4-digit number by a 1-digit number and then a 2-digit number on the IWB and calculating them through discussion as a class. Emphasise that it's easier to use short division when dividing by a 1-digit number and long division when dividing by a 2-digit number. CT to model and remind chn that a quick multiplication should be carried out when an easy next step isn't obvious – emphasise that some speed is needed in calculations during SATs. Then discuss a question where the answer will be below a multiple of 10 or 100. Explain that more steps increases the chances of a calculation error and that a quick subtraction calculation can reduce the amount of steps needed to reach the answer. CT to explain and model how to do this to class. Repeat with another example and discuss how to calculate it as a class and then discuss some previous SATs questions before beginning task.</p>	<p>Chn continue with differentiated levels of questioning from yesterday's lesson. Before continuing, chn correct any mistakes or errors from yesterday's lesson and then progress onto the next differentiated task.</p>				<p>Discuss Q3 and 4 from the extension questions together as a class. CT to model that a subtraction of 200 rather than 100 may be needed on some questions to reduce the amount of steps needed. Then discuss and attempt to accurately calculate one of the balancing questions together.</p>
<p><b>Extension Questions:</b> Questions that involve dividing a 4-digit number by a 1 or 2-digit number. Answers will contain remainders and will be lower than multiples of 10 or 100 for long division.</p> <p><b>Mastery Activity:</b> Word problems from yesterday. If completed, chn can attempt to solve balancing statements involving division.</p>								
<p>Friday</p>	<p>Re-cap methods of subtraction with chn and include questions that involve double exchanging and re-cap the different methods that can be used to calculate these questions. Remind chn that written methods do not always need to be used when subtracting numbers.</p>	<p>New concept <b>Y/N</b></p> <p>LO: Divide numbers with up to 4 digits by numbers with up to 2 digits using a formal written method of division</p> <p>1) Accurately divide numbers with up to 4 digits by a 1 or 2-digit number 2) Accurately divide numbers with up to 4 digits by a 1 and 2-digit number <b>3)</b> <b>Accurately calculate multiple-step, missing number statements involving division</b></p> <p><b>SC 3 – New level of concept</b></p>	<p>Place a division statement on the IWB that involves dividing a 4-digit number by a 1 and then a 2-digit number. Ask chn to attempt the questions on WOWO boards to begin with to establish who needs further support during the lesson. Then discuss 2 further questions that will require a quick multiplication to be carried out or have an answer lower than multiples of 100 during long division to re-cap how to accurately carry out a quick subtraction to reduce the number of steps and reduce the risk of making a calculation error. Emphasise that some speed is needed during calculation again. Before beginning task, discuss and calculate a couple of previous SATs questions as a class and then discuss and model how to accurately calculate a multiple-step, missing number problem from today's extension questions without providing chn with the answer. At tables, chn will attempt to accurately calculate the given division statements into their maths books. CT to support any chn who still have a lack of understanding in calculating division statements.</p>	<p>Begin on 2-digit numbers divided by 1 digit numbers. Objects to support if needed. Progress onto dividing 2-digit numbers by another.</p>	<p>Questions will involve dividing a 3-digit number by a 1 or 2-digit number. Answers will be above multiples of 10 and 100 for long division and can contain remainders.</p>	<p><b>MA:</b> Questions will involve dividing a 4-digit number by a 1 or 2-digit number. Answers will contain remainders and answers can be below multiple of 10 or 100 for long division.</p>	<p><b>HA:</b> Questions will involve dividing 4-digit numbers by a 1 or 2-digit number. Answers will contain remainders and will be below multiples of 10 or 100 for long division.</p>	<p>Discuss 2 of the MA questions together as a class to re-cap methods of division and then discuss Q1 of the extension questions from today's lesson together as a class to model how to attempt these types of questions when we continue next week.</p>
<p><b>Extension Questions:</b> Chn can attempt balancing statements and missing number, multiple-step problems that require the application of inverse to solve.</p> <p><b>Logic Mastery Activity –</b> Word problems from Wednesday. If finished, chn will be provided with a previous algebraic SATs paper question that requires division to calculate the answer. If chn are able to calculate the answer they can create a problem in their books for their partners to solve.</p>								

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