

Class: Year 3	Year:	Term:	Week (to)	Teacher:
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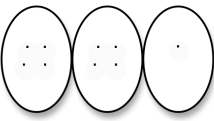
<p>Prior learning – check that children can already:</p> <ul style="list-style-type: none"> • solve one-step word problems involving all four operations • choose and use suitable equipment when following a given line of enquiry • select, organise and present information in lists, tables and simple diagrams • partition two-digit numbers and recognise the importance of place value • recognise simple fractions and find halves and quarters of sets of objects and small numbers • recall addition and subtraction facts for all numbers to 10 and multiples of 10 • understand inverse operations and use the inverse relationships of addition and subtraction to generate number facts • understand multiplication and division and derive and recall multiplication and division facts for 2, 5 and 10 	<p>Learning objectives:</p> <ul style="list-style-type: none"> • Solve one-step and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations • Read and write proper fractions (e.g. $\frac{3}{7}$, $\frac{9}{10}$), interpreting the denominator as the parts of a whole and the numerator as the number of parts; identify and estimate fractions of shapes; use diagrams to compare fractions and establish equivalents • Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 10 times-tables and the corresponding division facts (<i>covered in homework and weekly test</i>); recognise multiples of 2, 5 or 10 up to 1000 (<i>already good on multiples</i>) • Multiply one-digit and two-digit numbers by 10 or 100, and describe the effect (<i>covered in D2</i>) • Use practical and informal written methods to multiply and divide two-digit numbers (e.g. 13×3, $50 \div 4$); round remainders up or down, depending on the context • Understand that division is the inverse of multiplication and vice versa; use this to derive and record related multiplication and division number sentences (<i>covered in D2</i>) • Find unit fractions of numbers and quantities (e.g. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{6}$ of 12 litres) • Develop and use specific vocabulary in different contexts (<i>covered throughout unit</i>) • Know the relationships between kilometres and metres, metres and centimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record measurements (taken from D2) • Draw and complete shapes with reflective symmetry; draw the reflection of a shape in a mirror line along one side (taken from D2) 	<p>Vocabulary:</p> <p>problem, solution, calculate, calculation, inverse, answer, method, explain, predict, estimate, reason, pattern, relationship, compare, order, information, test, list, table, diagram</p> <p>place value, partition, ones, tens, hundreds, one-digit number, two-digit number, three-digit number</p> <p>sign, equals (=), operation, symbol, number sentence, equation, mental calculation, written calculation, informal method, jottings, number line</p> <p>count on, count back, add, plus, sum, total, subtract, take away, minus, difference, double, halve, inverse, multiply, times, multiplied by, product, multiple, share, share equally, divide, divided by, divided into, left, left over, remainder, round up, round down</p> <p>fraction, part, equal parts, one whole, parts of a whole, number of parts, one half, one third, one quarter, one fifth, one sixth, one tenth, two thirds, three quarters, three fifths, unit fraction</p>
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Weekly homework includes children learning their times-tables and number bonds (differentiated to the numbers they are up to), which they are then tested on once a week

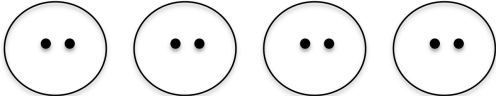
When HA are working on MA work without listening to my model a TA will check they understand it and are doing it correctly

	OBJECTIVES	TEACHING ACTIVITIES (20 mins)	INDEPENDENT WORK (20 mins)	Plenary (10 mins)	SUCCESS CRITERIA	Evaluation																								
M	<p>Mental: Read scales</p> <p>Main: Use practical and informal written methods to multiply two-digit numbers (e.g. 13 × 3)</p> <p>E2001</p>	<p>Mental: In ability partners children draw a blank scale, label the main intervals and ask a partner to say what would go on some of the minor intervals.</p> <p>Main: Children who worked on multiplication as repeated addition and arrays for the previous 2 days, go with a TA to make 3 number sentences from 1 number sentence using the same 3 numbers e.g. 4 X 2 = 8, so 2 X 4 = 8, 2 + 2 + 2 + 2 = 8 and 4 + 4 = 8 Group remaining children based on marking of yesterday's work. Those who were secure with short multiplication yesterday try to do it with decimals without any help. Just remind them that they need to make sure they keep the decimal point in the same place. For MA and HA revise model from yesterday on short multiplication, with and without, partitioning. Check how G + T got on with short multiplication with decimals, if struggled then go through how to do this. If G + T were OK with short multiplication with decimals, then explain how to do long multiplication as follows for 24 X 65: 1) multiply 5 by 4, which gives 20 which you write down under the line. 2) multiply 5 by 20, which gives 100, so you put 1 in the hundreds column. 3) multiply 60 by 4, which gives 240, so you write down the 40 and carry the 2 hundreds by writing a small 2 above the hundreds column. 4) multiply 60 by 20, which gives 1,200, to which you add the 2 hundreds you carried, which gives 1,440 5) add the 120 to the 1,440 to give an answer of 1,560</p> <table border="1" style="margin-left:auto; margin-right:auto; text-align:center; border-collapse: collapse;"> <tr><td></td><td>2</td><td>2</td><td></td></tr> <tr><td></td><td></td><td>2</td><td>4</td></tr> <tr><td></td><td>X</td><td>6</td><td>5</td></tr> <tr><td></td><td>1</td><td>2</td><td>0</td></tr> <tr><td>1</td><td>4</td><td>4</td><td>0</td></tr> <tr><td>1</td><td>5</td><td>6</td><td>0</td></tr> </table>		2	2				2	4		X	6	5		1	2	0	1	4	4	0	1	5	6	0	<p>LA – multiplication as repeated addition and as being commutative</p> <p>MA – same as yesterday if didn't get it</p> <p>HA – move on to multiplication without partitioning if understood partitioning yesterday</p> <p>G+T – move on to long multiplication if understood short multiplication yesterday</p>	<p>Children come up with their own question for themselves. In partners one child works through their question, explaining to their partner the steps as they do them. Their partner needs to listen and see if they miss out / aren't clear in their explanation. Model for children how to do this.</p>	<p>M: understand multiplication as repeated addition and arrays</p> <p>S: understand short multiplication</p> <p>C: understand long multiplication</p>	
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		2	4																											
	X	6	5																											
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1	4	4	0																											
1	5	6	0																											
T	<p>Mental: Solve problems involving length</p>	<p>Mental: In ability pairs, children use PP with different objects and their lengths to ask each other mental maths questions (search for D1001 for PP). Remind them of vocab on display e.g. sum, minus etc.</p>	<p>LA – division without remainders</p> <p>MA – division by 2, 3, 4, 5 and 6</p>	<p>In partners children come up with a question for each other (similar to what they did for</p>	<p>M: divide without remainders</p> <p>S: divide with remainders</p>																									

	<p>Main: Use practical and informal written methods to multiply and divide two-digit numbers</p> <p>Division with remainders</p> <p>E2002</p>	<p>Main: Ask children to do the following questions on their WBs: 1) $12 \div 2$ 2) $20 \div 5$ 3) $13 \div 3$ 4) $51 \div 9$ Children who get first 2 questions wrong do LA work. Children who get numbers the first 2 right do MA or HA work depending on which times-tables they know up to. Children who get all the questions right go with a TA to work on expressing quotients as fractions, decimals and percentages. Explain how a quotient is another word for the answer to a division question. To calculate what fraction a remainder is you: • make the divisor (the number you are dividing by) the bottom number and make the remainder the top number e.g. with $13 \div 2 = 6r1$, 2 becomes the bottom number and 1 becomes the top number to give $6 \frac{1}{2}$ To calculate what decimal a remainder is you: • can convert the fraction to a percentage and use this to get the decimal With rest of the class revise how to divide with remainders e.g. $23 \div 7 = 3r2$ 7, 14, 21, 28 Emphasise how the remainder cannot be bigger than the number you are dividing by e.g. when dividing by 4, you can't have a remainder of 5. Emphasise how when working out the answer you count the number of 'jumps' e.g. in the example above there are 3 'jumps' (7, 14 and 21), you do not use the number you get to e.g. the answer is not 21r2. Explain how the quickest way to divide is to use your times-tables e.g. for $23 \div 7$, think what number in my times-tables is 23 closest to; this can be quicker than going up in 7s.</p>	<p>HA – division by 7, 8 and 9</p> <p>G+T – express quotients as fractions, decimals and percentages</p>	<p>their independent work), answer each other's questions and check each other's answers</p>	<p>C: express quotients as fractions, decimals and percentages</p>	
W	<p>Mental: Solve problems involving price</p> <p>Main: Use practical and informal written methods to divide two-digit numbers</p> <p>E2003</p>	<p>Mental: In ability pairs, children use PP with different objects and their prices to ask each other mental maths questions (search for D1004). Remind them of vocab on display e.g. sum, minus etc.</p> <p>Main: Ask children to write the following as repeated subtraction number sentences on their WB: $10 \div 2 = 5$ $20 \div 5 = 4$ Ask children to write the following as division number sentences on their WB: $12 - 3 - 3 - 3 - 3 = 0$ $20 - 10 - 10 = 0$ Children who don't get all these questions right, go with a TA to work on understanding division as repeated subtraction. For children who get these questions right, explain how to do chunking Revise how division can be seen as repeated subtraction Model how to use ad-hoc subtraction in the following way as this is how it was introduced a few weeks ago before we had done column</p>	<p>LA – division as repeated subtraction</p> <p>MA – divide by 1-digit numbers using chunking</p> <p>HA – divide by 2-digit numbers using chunking</p>	<p>Children come up with their own question for themselves. In partners one child works through their question, explaining to their partner the steps as they do them. Their partner needs to listen and see if they miss out / aren't clear in their explanation. Model for children how to do this.</p>	<p>M: understand division as repeated subtraction</p> <p>S: divide by 1-digit numbers</p> <p>C: divide by 2-digit numbers</p>	

		<p>subtraction:</p> $45 \div 3 = 15 \quad \begin{array}{r} - 30 \text{ (10 X 3)} \\ - 15 \text{ (5 X 3)} \\ \hline 45 \quad 15 \quad 0 \end{array}$ <p>Model how to do this vertically as chunking:</p> $\begin{array}{r} 45 \\ - 30 \text{ (3 X 10)} \\ \hline 15 \\ - 15 \text{ (3 X 5)} \\ \hline 0 \end{array}$ <p>Explain how you want to do the biggest jumps you can, so that you don't need to do too many jumps. Ensure with all this work that on the IWB I use a squared paper background and ensure the children put only 1 number or operation symbol in each square.</p>				
Th	<p>Mental: Solve problems involving capacity</p> <p>Main: Use practical and informal written methods to multiply and divide two-digit numbers</p> <p>E2004</p>	<p>Mental: In ability pairs, children use PP with different objects and their capacities to ask each other mental maths questions (search for D1002). Remind them of vocab on display e.g. sum, minus etc.</p> <p>Main: Ask children to draw circles and dots to represent: 1) $16 \div 4$ 2) $18 \div 6$ Children who aren't able to do this go with a TA to work on it.</p> <p><u>Example</u></p> $9 \div 4 = 2 \text{ r}1$  <p>LA work out the answer to division questions using both methods for each question by drawing sets of the number you are dividing by e.g. sets of 4 in the example above. Group remaining children based on marking of yesterday's work. Revise explanation of chunking from yesterday.</p> <p>Those who were secure on dividing by 2-digit numbers yesterday try to answer questions I have given by following my explanation independently: to divide by decimals multiply both numbers by 10 or 100 to get rid of the decimal e.g. $4.5 \div 0.9$ $45 \div 9 = 5$, so $4.5 \div 0.9 = 5$</p>	<p>LA – division as equal sharing</p> <p>MA – same as yesterday (divide by 1-digit numbers using chunking) if didn't get it yesterday</p> <p>HA – move on to dividing by 2-digit numbers using chunking if able to divide by 1-digit numbers yesterday</p> <p>G+T – move on to division with decimals if able to divide by 2-digit numbers yesterday</p>	<p>Children come up with their own question for themselves. In partners one child works through their question, explaining to their partner the steps as they do them. Their partner needs to listen and see if they miss out / aren't clear in their explanation. Model for children how to do this.</p>	<p>M: understand division as equal sharing</p> <p>S: divide by chunking</p> <p>C: divide with decimals</p>	

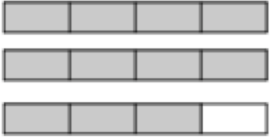

F	<p>Mental: Solve problems involving weight</p> <p>Main: Short division</p> <p>E2005</p>	<p>Mental: In ability pairs, children use PP with different objects and their weights to ask each other mental maths questions (search for D1003). Remind them of vocab on display e.g. sum, minus etc.</p> <p>Main: Children who have been working on division as repeated subtraction and equal sharing on previous 2 days go with TA and carry on working on this. For rest of the children explain how to do short division as follows for $47 \div 3$:</p> <ol style="list-style-type: none"> 1) write the number you are dividing by (3) 'before the house' and write the number you are dividing (47) 'under the roof' 2) see how many times 3 goes into 4 3) it goes once remainder 1 so you put a 1 'on the roof' and put the remainder before the 7 4) see how many times 3 goes into 17 5) it goes 5 times remainder 2 so you put 5r2 'on the roof' <table border="1" data-bbox="376 544 636 671"> <tr> <td></td> <td>1</td> <td>5</td> <td>r2</td> </tr> <tr> <td>3</td> <td>4</td> <td>17</td> <td></td> </tr> </table>		1	5	r2	3	4	17		<p>LA – division as repeated subtraction and equal sharing</p> <p>Short division by:</p> <p>MA – 2, 3, 4, 5 and 6</p> <p>HA – 7, 8 and 9</p>	<p>Children come up with their own question for themselves. In partners one child works through their question, explaining to their partner the steps as they do them. Their partner needs to listen and see if they miss out / aren't clear in their explanation. Model for children how to do this.</p>	<p>M: understand division as repeated subtraction and equal sharing</p> <p>S: use short division to divide without remainders</p> <p>C: use short division to divide with remainders</p>	
	1	5	r2											
3	4	17												

M	<p>Mental: Order metric measurements</p> <p>Use practical and informal written methods to multiply and divide two-digit numbers</p> <p>Short division and long division</p> <p>E2006</p>	<p>Mental:</p> <p>Children who have been working on division as repeated subtraction and equal sharing go with TA to work on understanding multiplication and division as inverses. Given circles and dots and need to create a multiplication and a division number sentence using the diagrams.</p> <div style="display: flex; align-items: center; justify-content: space-around;">  <div style="text-align: right;"> $4 \times 2 = 8$ $8 \div 2 = 4$ </div> </div> <p>Group children based on marking of yesterday's work. Revise model on short division from yesterday. For those who were secure on it yesterday, explain how to do long division as follows for $744 \div 25$:</p> <ol style="list-style-type: none"> 1) write the number you are dividing by (25) 'before the house' and write the number you are dividing (744) 'under the roof' 2) see how many times 25 goes into 74 3) it goes twice so you put a 2 'on the roof' and subtract '50 (2 X 25)' from '74', which leaves you with 244 4) see how many times 25 goes into 244 5) it goes 9 times so you put a 9 'on the roof' and subtract 225 (9 X 25) from 244, which leaves you with 19 6) 25 does not go into 19 so this is your remainder <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tr><td></td><td></td><td></td><td>2</td><td>9</td><td>r19</td></tr> <tr><td>2</td><td>5</td><td>7</td><td>4</td><td>4</td><td></td></tr> <tr><td></td><td>-</td><td>5</td><td>0</td><td></td><td></td></tr> <tr><td></td><td></td><td>2</td><td>³4</td><td>¹4</td><td></td></tr> <tr><td></td><td>-</td><td>2</td><td>2</td><td>5</td><td></td></tr> <tr><td></td><td></td><td></td><td>1</td><td>9</td><td></td></tr> </table>				2	9	r19	2	5	7	4	4			-	5	0					2	³ 4	¹ 4			-	2	2	5					1	9		<p>LA – multiplication and division as inverses</p> <p>MA – same as yesterday (short division) if didn't get it yesterday</p> <p>HA – move on to long division if able to do short division yesterday</p>	<p>Children come up with their own question for themselves. In partners one child works through their question, explaining to their partner the steps as they do them. Their partner needs to listen and see if they miss out / aren't clear in their explanation. Model for children how to do this.</p>	<p>M: understand multiplication and division as inverses</p> <p>S: understand short division</p> <p>C: understand long division</p>
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Tu	<p>Mental:</p> <p>Main: Fill in blank numbers or operation symbols in calculations</p> <p>E2007</p>	<p>Mental:</p> <p>Main: HA attempt work without listening to my model. Explain how the equals sign means 'balance' by putting unifix cubes in an actual weighing scale to physically represent a calculation e.g. put 5 cubes in one side of the scales, then 7 in the other. What do I need to do to make the scales balance? (add 2 to the side with 5 or take away 2 from the side with 7)</p> <p>Go through similar examples with all four operations Model how we can use inverses to work out missing numbers e.g:</p>	<p>Fill in missing numbers or operations in:</p> <p>LA – number sentences where one side of the equals sign requires calculation e.g. $2 \times ? = 8$ (only numbers missing, no operations missing)</p> <p>MA – as LA, but also operations missing e.g. $8 = 2 ? 4$</p>	<p>In partners children come up with a question for each other (similar to what they did for their independent work), answer each other's questions and check each other's answers</p>	<p>M: fill in missing numbers in number sentences</p> <p>S: also fill in missing operations and understand the equals sign as meaning 'balance'</p> <p>C: calculate the missing angles</p>																																				

		<p>$3 + ? = 7$ – we can use $7 - 3 = 4$ $4 \times ? = 8$ – we can use $8 \div 4 = 2$ LA and MA start work. Check HA were OK with work, if were then go with TA to work on calculating the missing angles around a point. TA to revise how:</p> <ul style="list-style-type: none"> • a full turn is 360° • a straight line is 180° • the angles in a triangle add up to 180° • a right-angle is represented by a square • a short line through the sides of a triangle represents that those sides are the same length 	<p>HA – calculations where both sides of the equals sign require calculation e.g. $2 \times 4 = 40 \div ?$</p> <p>Ext – calculate the missing angles around a point</p>		around a point	
W	<p>Mental: Solve problems involving time</p> <p>Main: Round remainders up or down depending on context</p> <p>E2008</p>	<p>Mental: Several times on the board and use these to ask mental maths questions on time</p> <p>Main: Revise how to divide with remainders. Explain need to imagine the division problems in a real-life context. Draw pictures to help understand whether to round up or down Model how to answer questions by drawing pictures e.g. 13 pens, 4 pens in a pack, how many packs can be made? Draw players in teams – only one pen left over; is that enough for another pack? Also physically make groups of pens. Emphasise the importance of answering the question, not just working out the division calculation</p>	<p>Round remainders up or down depending on context, dividing by</p> <p>LA – 2, 5 and 10</p> <p>MA – 2, 3, 4, 5 and 6</p> <p>HA – 7, 8 and 9</p> <p>G + T – 2-digit numbers</p>	<p>Children come up with their own questions and ask each other</p>	<p>M: divide with the correct remainder</p> <p>S: round the remainder up or down depending on the context</p> <p>C: do this dividing with 2-digit numbers</p>	
Th	<p>Solve one-step and two-step problems involving money, choosing and carrying out appropriate calculations</p> <p>E2009</p>	<p>Revise how there are 100p in £1 and how to change pence to pounds and vice versa Model how to solve money word problems using RUCSAC:</p> <ul style="list-style-type: none"> • Read the question • Underline numbers and key words • Calculation (write it out) • Solve by using working out • Answer (write A = __) • Check (have you written the unit of measurement) <p>For children who complete HA questions explain how we can represent the cost of some things through algebra. For example, when someone comes to fix your washing machine they might charge a £30 call-out fee and then charge £10 an hour for each hour they work on it. We can write an algebra sentence to show this where:</p> <ul style="list-style-type: none"> • 'c' is the cost of having the washing machine repaired • 'y' is the number of hours the repair person works on the machine <p>$c = 30 + 10y$ (In algebra the multiplication sign is not used, so instead of writing $10 \times n$, it would be written as $n = 10y$.) Children need to write similar algebra equations for similar methods of pricing with a fixed flat fee plus a variable rate e.g. for a black taxi.</p>	<p>LA – one step word problems involving +, -, X and \div,</p> <p>MA – two step word problems involving +, -, X and \div</p> <p>HA – as MA, but calculation with decimals places</p> <p>G+T – represent cost of things through algebra</p>	<p>In pairs write a question for each other to answer, and then swap questions and try to answer each other's</p>	<p>M: solve one step problems involving all four operations</p> <p>S: solve two step problems involving all four operations</p> <p>C: represent problems through algebra</p>	

F	<p>Mental: Recognise multiples of numbers</p> <p>Main: Solve one-step and two-step problems involving length, choosing and carrying out appropriate calculations</p> <p>E2010</p>	<p>Mental: In ability 3s children play gladiators on their individual whiteboards on recognising multiples. LA to do multiples of 2, 5 and 10 only. HA do multiples of any number.</p> <p>Main: Revise conversion Model how to solve length word problems using RUCSAC:</p> <ul style="list-style-type: none"> • Read the question • Underline numbers and key words • Calculation (write it out) • Solve by using working out • Answer (write A = __) • Check (have you written the unit of measurement) 	<p>LA – one step word problems involving +, -, X and ÷, two step word problems involving + and -</p> <p>MA – as LA, but also two step word problems involving X and ÷</p> <p>HA – as MA, but calculation with decimals places</p>	<p>In pairs write a question for each other to answer, and then swap questions and try to answer each other's</p>	<p>M: solve one step problems involving all four operations</p> <p>S: solve two step problems involving all four operations</p> <p>C: solve problems involving decimal places</p>	
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	OBJECTIVES	TEACHING ACTIVITIES (20 mins)	INDEPENDENT WORK (20 mins)	Plenary (10 mins)	SUCCESS CRITERIA	Evaluation
M	<p>Mental: Tell the time</p> <p>Main: Solve one-step and two-step problems involving weight, choosing and carrying out appropriate calculations</p> <p>E2011</p>	<p>Mental: Give children a small clock, one between two to use to ask each other questions on telling the time in numbers e.g. 10.22.</p> <p>Main: Model how to solve weight word problems using RUCSAC</p>	<p>LA – one step word problems involving +, -, X and ÷, two step word problems involving + and -</p> <p>MA – as LA, but also two step word problems involving X and ÷</p> <p>HA – as MA, but calculation with decimals places</p>	<p>In pairs write a question for each other to answer, and then swap questions and try to answer each other's</p>	<p>M: solve one step problems involving all four operations</p> <p>S: solve two step problems involving all four operations</p> <p>C: solve problems involving decimal places</p>	
Tu	<p>Mental: Tell the time</p> <p>Main: Solve one-step and two-step problems involving capacity, choosing and carrying out appropriate calculations</p> <p>E2012</p>	<p>Mental: Give children a small clock, one between two to use to ask each other questions on telling the time in words e.g. ten to seven.</p> <p>Main: Model how to solve capacity word problems using RUCSAC</p>	<p>LA – one step word problems involving +, -, X and ÷, two step word problems involving + and -</p> <p>MA – as LA, but also two step word problems involving X and ÷</p> <p>HA – as MA, but calculation with decimals places</p>	<p>In pairs write a question for each other to answer, and then swap questions and try to answer each other's</p>	<p>M: solve one step problems involving all four operations</p> <p>S: solve two step problems involving all four operations</p> <p>C: solve problems involving decimal places</p>	
W	<p>Mental: Choose appropriate units for length</p> <p>Main: Use diagrams to compare fractions and establish equivalents</p> <p>Simplify fractions</p> <p>E2013</p>	<p>Mental: Give children an object and they need to write on their WBs what unit they would measure it in cm, m or Km.</p> <p>Main: G+T to start work straight away on HA work to check that they understand it. Model for others what a fractions wall is useful for and how to use it to compare fractions, decimals and percentages. LA and MA use a fractions wall to fill in the blank in sentences such as one below with either 'is equivalent to', 'is greater than' or 'is less than'</p> <div style="text-align:center;"> $\frac{1}{2} \quad \text{—————} \quad \frac{1}{3}$ </div> <p>HA do the same, but their fractions wall and sentences will</p>	<p>LA – compare fractions using a fractions wall (answers only in numbers e.g. $\frac{1}{2}$ is greater than $\frac{1}{4}$)</p> <p>MA – compare fractions using a fractions wall (answers in numbers and words e.g. one half is greater than one quarter)</p> <p>HA – compare fractions, percentages and decimals using a fractions wall (with percentages or decimals)</p> <p>G+T simplify fractions</p>	<p>In partners children come up with statements using their fractions wall, using the phrases 'is equivalent to', 'is greater than' or 'is less than'</p>	<p>M: compare size of fractions</p> <p>S: compare fractions, percentages and decimals</p> <p>C: simplify fractions</p>	

		<p>include percentages and decimals Check G+T were OK with HA work, and if so, model how to simplify fractions: When you simplify fractions you divide both the top and bottom numbers by the same number</p> $\frac{10}{20} = \frac{1}{2}$ <p style="text-align: center;">÷10 ÷10</p> <p>Explain the need to ensure you simplify as much as possible and how it is best to do the biggest jumps you can.</p>	without using a fractions wall		
Th	<p>Mental: Estimate weight</p> <p>Main: Find unit fractions of numbers</p> <p>Add fractions</p> <p>E2014</p>	<p>Mental: Who Wants to be a Millionaire on weight. Ask children to write on their WBs their answer to each question.</p> <p>Main: Ask children to complete the following on their whiteboards, showing their working out for the first 2 questions: Calculate these questions on your whiteboard:</p> <p>1) $\frac{3}{5}$ of 40</p> <p>2) $\frac{5}{8}$ of 48</p> <p>Write the improper fraction and mixed number shown:</p> <p>3) </p> <p>4) </p> <p>Children who get all 4 questions right go and attempt work on adding fractions on their own to see if they can figure out how to do it. Children who didn't use right method for first 2 questions go with TA to work on finding fractions of numbers. TA to explain denominator (bottom number) and numerator (top number) silly alliterative saying – times by the top, divide by the 'dottom' to help the children remember this. Model how to find fractions of numbers by dividing by the denominator and multiplying by the numerator. For children who got first 2 questions right, but not questions on mixed numbers explain how to do these:</p> <ul style="list-style-type: none"> • Think of mixed numbers and improper fractions as pizzas or chocolate bars. • For a mixed number you write the number of whole bars / pizzas and then the number of pieces / slices left e.g. $2 \frac{3}{4}$ • For an improper fraction you see how many pieces / slices are in one whole bar / pizza and put the number of pieces on top of this e.g. $\frac{11}{4}$. They are called improper because they look wrong with the 	<p>LA – find fractions of number where the numerator is 1</p> <p>MA – find fractions of numbers where the numerator is more than 1</p> <p>HA – derive mixed numbers and improper fractions from diagrams</p> <p>G + T – add and subtract improper fractions and mixed numbers</p>	<p>Children who were doing the same work compare their answers, discussing any differences, without changing their answers</p>	<p>M: calculate fractions by dividing by the denominator and multiplying by the numerator</p> <p>S: derive mixed numbers and improper fractions from diagrams</p> <p>C: add and subtract fractions</p>

		<p>top number being bigger than the bottom number. See how children who attempted to add fractions got on. How did they go about trying to do it?</p> <p>Explain how to add and subtract fractions, including improper fractions and mixed numbers:</p> <ul style="list-style-type: none"> • Use diagrams at first to give visual explanation • Explain how need to convert fractions so that both have the same bottom number. Can do this by multiplying the two bottom numbers e.g. $\frac{1}{4} + \frac{1}{2}$ you can multiply 4 by 2 to convert them to eighths. 				
F	<p>Mental: Estimate capacity</p> <p>Main: Draw and complete shapes with reflective symmetry; draw the reflection of a shape in a mirror line along one side</p> <p>E2015</p>	<p>Mental: Who Wants to be a Millionaire on capacity. Ask children to write on their WBs their answer to each question.</p> <p>Main: Do an example with the letter Y of drawing a line of symmetry. Ask children to draw the letters C, H and P on their whiteboards and draw on any lines of symmetry these letter have. Children who identify all of the lines of symmetry correctly go with TA to work on rotations, reflections and translations. TA to introduce / revise terms rotation, reflection and translation. Children working on these need to look at examples of translation, rotation and reflection at the top of the worksheet and in pairs come up with a definition of each one. Discuss definitions as a group and settle on them. TA to explain how to do independent work available from http://www.superteacherworksheets.com/geometry/translation-rotation-reflection-6.pdf If these children finish the worksheet, they can draw their own examples of translations, rotations and reflections in their book. For children still on carpet, explain that where we can put a line of symmetry both sides of the line of symmetry look identical. Model this by cutting out some letters, folding them and drawing lines of symmetry on them. Draw some correct and incorrect lines of symmetry on some letters and ask them if they are lines of symmetry or not. Discuss why they are or are not correct lines of symmetry. Model how to check if a line of symmetry is correct by using a mirror. LA need to complete worksheet on finding the lines of symmetry in all of the upper case letters of the alphabet.</p>	<p>LA – draw the lines of symmetry on letters</p> <p>MA – identify if a letter has been reflected, rotated or translated</p> <p>HA – draw their own reflections, translations and rotations of letters</p>	<p>In pairs children go around the room using rulers as lines of symmetry to show symmetry in the class. HA can translate and rotate some objects as well.</p>	<p>M: draw a line of symmetry and draw the reflection of a letter</p> <p>S: identify if a letter has been reflected, rotated or translated</p> <p>C: draw their own reflections, translations and rotations of letters</p>	