

Learning Wall content available from day one for the block e.g WAGOLL, visual representations, etc								
Year group/class: 4	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
				WBA	Support	Core	Extension	
Monday	counting stick doubling and halving <ul style="list-style-type: none"> • 6 • 8 • 12 • 60 • 84 • 212 	New concept Y /N D1L.O To multiply together 3 numbers. <i>Recall multiplication facts up to the 9 times tables.</i> <i>Recall multiplication facts up to the 9 times tables.</i> Multiply together 3 numbers Solve missing number problems. D1/2 LO: To solve multiplication problems solve multiplication problems using concrete objects solve multiplication problems using pictorial representations write multiplication statements using x and =	Discuss what multiplication means 2×3 I have 2 lots of 3 How many do I have? Show with counters to include visual representation. Show different vocabulary for multiply, times, product, lots of. Give children simple multiplication practise questions. Show the three single digit numbers. How would we solve this? $2 \times 3 \times 4$. Explain that we must multiply the 2 single digits together first. $2 \times 3 = 6$. We must then multiply our answer by the third number. $6 \times 4 = 24$. Give children another selection of questions to practise in this style. Give HA missing number problems. You must work backwards using the inverse. What is the inverse of multiplication? mastery	<ol style="list-style-type: none"> $3 \times 3 =$ $3 \times 4 =$ $6 \times 2 =$ $5 \times 2 =$ $3 \times 2 =$ $4 \times 1 =$ 	<ol style="list-style-type: none"> $4 \times 6 =$ $3 \times 8 =$ $4 \times 7 =$ $6 \times 5 =$ $8 \times 4 =$ $2 \times 12 =$ 	<ol style="list-style-type: none"> $4 \times 2 =$ $3 \times 2 =$ $4 \times 6 =$ $3 \times 2 =$ $3 \times 7 =$ $4 \times 8 =$ 	<ol style="list-style-type: none"> $4 \times 4 =$ $2 \times ? =$ $3 \times ? =$ $? \times 6 =$ $? \times 6 =$ $? \times 7 =$ 	Discuss mastery- remind children of meaning of 'product'
Tuesday	balancing equations test style question $4 + _ = 10$ $25 + 75 = _ + 50$	New concept Y /N D2L.O: To recognise factor pairs of numbers.	What are factor pairs? Factor pairs are two numbers that, when multiplied together, equal another number, or product. For instance, 1 and 12, 2 and 6, and 3 and 4 are the three factor pairs for the number 12. Show the factor pairs for 6 in a list, always starting with 1 and the number. Show a factor rainbow for 24 to show a	<ol style="list-style-type: none"> $4 \times 5 =$ $1 \times 8 =$ $2 \times 6 =$ $4 \times 6 =$ $3 \times 5 =$ $3 \times 6 =$ 	<ol style="list-style-type: none"> $4 \times 5 =$ $1 \times 8 =$ $2 \times 6 =$ $4 \times 6 =$ $3 \times 5 =$ $3 \times 6 =$ 	Find the factor pairs for: 12 24	Find the factor pairs for: 36 48 56	Discuss the mastery. Where did they start? Which numbers could they eliminate?

Mastery Activity



True or False


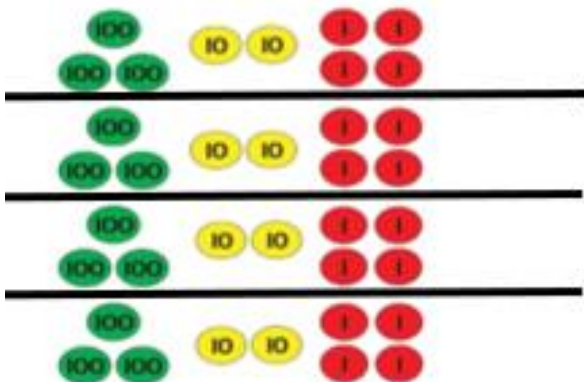
$6 \times 8 = 6 \times 4 \times 2$

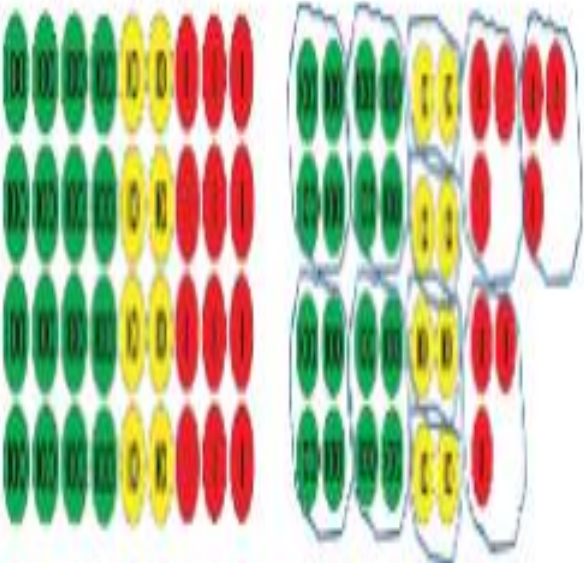
$6 \times 8 = 6 \times 4 + 4$

Explain your reasoning.

Can you write the number 24 as a product of three numbers?

	$3456 + 2316 = \underline{\quad}$ $+ 1000$	<p>To understand what a factor pair</p> <p>To find factor pairs of given numbers.</p> <p>Investigate numbers with the most factors.</p> <p>Year 1 and 2 LO D1/2 LO: To solve multiplication problems solve multiplication problems using concrete objects solve multiplication problems using pictorial representations write multiplication statements using \times and $=$</p>	<p>clear visual representation and how to know we have found all factor pairs. We have met the middle of our rainbow because 5 is not a factor.</p> <p>Factor Rainbow for 24</p>  <p>practise on whiteboards finding all factor pairs for 12.</p> <p>Mastery: Find the number under 50 with the most factor pairs. Look for children working systematically.</p>	using objects	drawing pictorial representations	36 42 48 63	63 72 96	
<p>Wednesday</p>	<p>counting stick starter</p> 3×2 $3 \times 2 \times 5$ $4 \times 6 \times 1$ $3 \times 4 \times 5 \times 0 \times 2 \times 1$	<p>New concept Y/N</p> <p>D3LO: Use place value, known and derived facts to multiply and divide mentally.</p> <p>recall times tables facts for 12 times tables multiply by 1 and 0 solve missing number problems</p> <p>year 1 and 2 D3 LO: To solve multiplication problems solve multiplication problems using pictorial representations write multiplication statements using \times and $=$ use pictures to write multiplication problems</p>	<p>What happens when we multiply by 0 and 1? Show some practise questions and discuss</p> <ul style="list-style-type: none"> 3×1 5×1 6×0 4×0 <ul style="list-style-type: none"> What do you notice? What about $4 \times 3 \times 0 \times 2 \times 1$ <p>Dismiss common exceptions with the last question. Even if there are lots of other numbers, whenever we multiply by 0, the answer will always be 0. Practise questions and discuss:</p> $\square \times 1 = 13$ $12 \times 0 = \square$ $3 \times 2 \times \square = 18$	$3 \times 5 =$ $4 \times 4 =$ $2 \times 2 =$ $5 \times 5 =$ $3 \times 7 =$ $4 \times 8 =$	$4 \times 11 =$ $6 \times 8 =$ $5 \times 7 =$ $6 \times 3 =$ $8 \times 9 =$ $3 \times 12 =$ write problems about the following picture e.g how many buttons, eyes etc: 	$2 \times 0 =$ $3 \times 1 =$ $6 \times 0 =$ $11 \times _ = 11$ $7 \times _ = 0$ $4 \times _ \times 4 = 16$	$4 \times _ = 0$ $13 \times _ = 13$ $3 \times _ \times 6 = 0$ $1 \times _ \times _ = 25$ $_ \times _ \times _ = 24$ $_ \times _ \times _ = 36$	<p>Solve mastery as a class. Why is the 0 not useful to us? How can we use factors pairs to help us solve this?</p>

			<p>Try to reach the target number below by multiplying three of the numbers together. Cross out any numbers you don't use.</p> <p>Target number: 144</p> <p>1 5 3 0 6 8</p> <p>Picture for Support and WBA:</p> <p>How many questions can you write about the gingerbread men? e.g. How many buttons?</p> 					
Thursday	<p>What is the effect of multiplying by 0?</p> <p>$4 \times 0 =$</p> <p>$8 \times 0 =$</p> <p>What do you notice? Does it always work?</p>	<p>New concept Y /N</p> <p>D4LO: Multiply two digit and three digit numbers by a one digit number</p> <p>represent a 3 digit number using counters multiply a 2 digit by a 1 digit number using concrete objects multiply a 3 digit number by a 1 digit number using concrete objects</p> <p>year 1 and 2 D4 LO: To solve multiplication problems</p>	<p>Start by discussing different terms for multiplication to recap. Show pictorial representations. Explain making the number 4 times, it is 4 groups of 324.</p> <p>$324 \times 4 = 1,296$</p> 	<p>word problems below</p>	<p>24×2 31×3 22×5 35×3 42×2 34×4</p>	<p>$1. 46 \times 4$ $2. 73 \times 3$ $3. 24 \times 8$ $4. 31 \times 5$ $5. 52 \times 6$ $6. 81 \times 3$</p>	<p>213×5 247×8 124×6 421×7 387×8 642×3</p>	<p>Solve mastery together giving lots of examples to show it is not true e.g 56×3</p>

	$3 \times 4 \times 7 \times 0 \times 2 \times 5 =$	<p>solve multiplication problems using pictorial representations write multiplication statements using \times and $=$ solve word problems.</p>	<p>Have children practise several questions on whiteboards before sending the off. mastery:</p> <p>Penny says a two digit number multiplied by a one digit number will always give a two digit answer. Is she correct? Justify your answer.</p>					
Friday	<p>counting stick starter</p> <p>Subtraction 18 - 9 456 - 124 3407 - 4311</p>	<p>New concept Y /N</p> <p>D5L.O: To multiply 2 and 3 digit numbers by 1 digit.</p> <p>1. To multiply 2 digits by 1 digit pictorially</p> <p>2. To multiply 3 digits by 1 digit pictorially</p> <p>3. To multiply 2 digits by 1 digit using written methods.</p> <p>year 1 and 2 D5LO: To solve multiplication problems count in 2s, 5s and 10s solve problems counting in 2s, 5s and 10s.</p>	<p>Show a pictorial representation of a multiplication</p> <p>$423 \times 4 = 1,692$</p>  <p>Model counting up the total 16 hundreds = 1600 8 tens = 80 12 ones = 12</p> <p>Give children questions to practise:</p> <ul style="list-style-type: none"> • 22 x 4 • 45 x 6 • 134 x 7 <p>Model the written method (only to be used by those secure in place value based on assessment of ptractise questions and previous lesson)</p>	<p>word problems with visual representation counting in 2s, 5s and 10s</p>	<p>Using the pictorial method on a whiteboard</p> <ol style="list-style-type: none"> 1. 42 x 4 2. 23 x 6 3. 52 x 5 4. 121 x 6 5. 232 x 5 6. 312 x 3 	<p>Using the pictorial method on a whiteboard</p> <ol style="list-style-type: none"> 1. 84 x 4 2. 324 x 6 3. 453 x 7 4. 624 x 4 5. 345 x 8 	<p>using the written method</p> <ol style="list-style-type: none"> 1. 53 x 8 2. 24 x 8 3. 23 x 9 4. 53 x 7 5. 91 x 6 	<p>Solve mastery as a class.</p>

$$\begin{array}{r}
 67 \\
 \times 6 \\
 \hline
 42 \\
 360 \\
 \hline
 402 \\
 \hline
 1
 \end{array}$$

Show with the brackets alongside modelling 6×7 and 6×60 . Check place value by using known number facts
 I know that:
 $6 \times 6 = 36$
 $60 \times 6 = 360$ (making it 10 times bigger)
 Repeat with a 3 digit number.

Subject Planning : maths multiplication

Week beginning: week 7 19th October

Day 4 word problems WBA

1. Lucy has 3 friends. They each give her 5 sweets. How many sweets does she have?
2. There are 4 pencils in each pack. There are 4 packs. How many pencils are there?
3. There are 5 tables in the classroom. 2 children sit at each table. How many children are in the class.
4. Jack has some cupcakes. He gives 6 each to 3 of his friends. How many cupcakes did he have?

Day 5 word problems



There are 10 potatoes in a bag.



There are 5 pineapples in a crate.

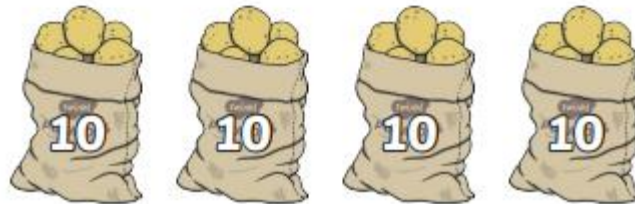


There are 2 sweaters in a basket.

How many potatoes does the shop have altogether?



They sell 3 bags. How many now?



How many pineapples does the shop have altogether?



They sell 2 crates. How many now?



They sell 3 more crates. How many now?



How many swedes does the shop have altogether?



They sell 3 baskets. How many now?



