Maths at Priors Field

Maths is a core part of the National Curriculum which helps to prepare our pupils for their future education and life beyond. Through mathematics, children are taught to reason logically, solve problems and think in abstract ways. These skills are hugely important and integral aspects of everyday life and we are therefore committed to developing positive and enthusiastic attitudes towards maths at Priors Field.

The National Curriculum form mathematics aims to ensure that all children:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

At Priors Field, we take into account the 'Concrete – Pictorial – Abstract' concept of learning maths, developed by American psychologist Jerome Bruner. The 'Concrete' stage of learning is the 'doing' stage whereby children are physically counting objects and using materials to represent calculations. In the 'Pictorial' stage, visual representations of problems and calculations are created, such as bar models and 'part-whole' models. The 'Abstract' stage is what most adults associate with maths, whereby values and calculations are represented through a range of mathematical symbols. The three stages of learning do not present a one-way journey and we ensure that pupils of all ages are given sufficient opportunities to learn maths within each of these phases. Examples of these different representations, releva

nt to each year group are outlined in our calculation policies for addition, subtraction, multiplication and division below.

Finally, through daily teaching of mathematics at Priors Field we offer a great opportunity for pupils to develop their 'Growth Mindset' and put into practice many key parts of the school's vision, such as being resilient, determined, aspirational, explorers, investigators, proud, life-long learners.

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Year 5

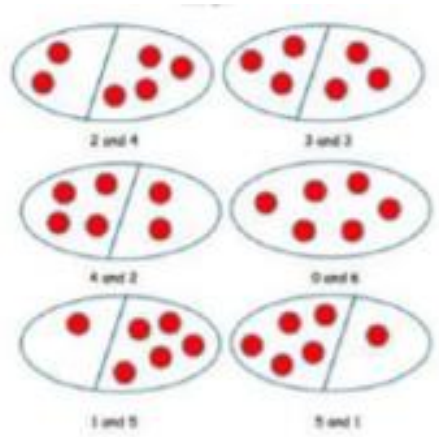
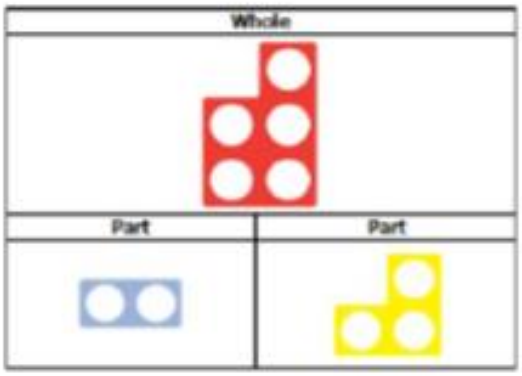
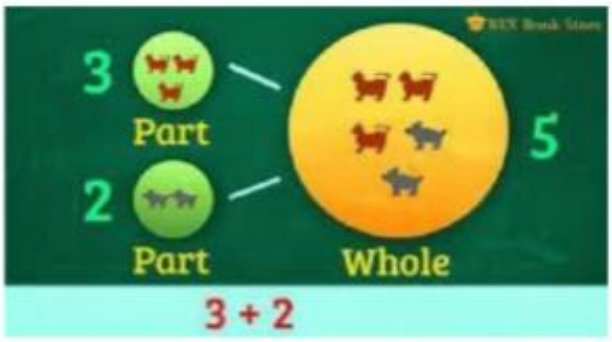
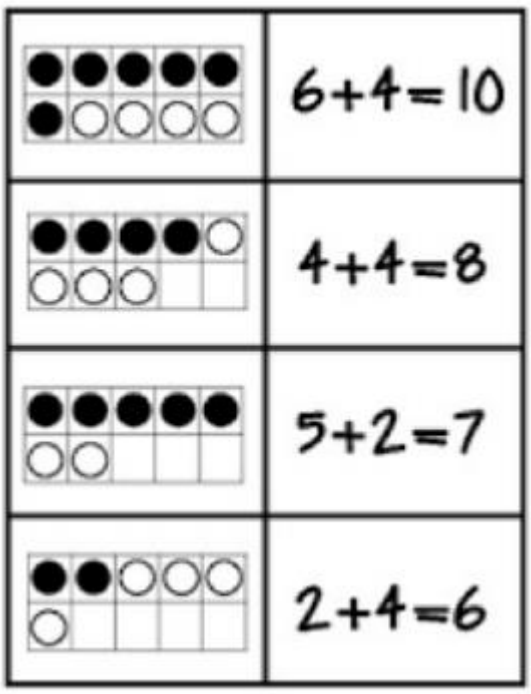
Year 6

Calculation Policy Overview

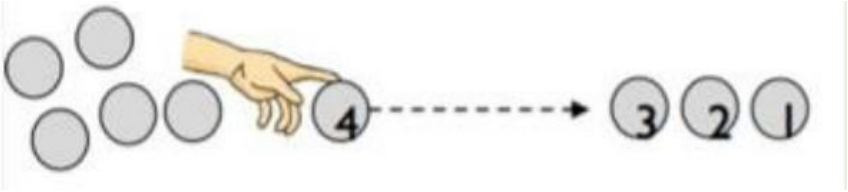
Addition	
Reception	- Explore 'part, part whole' relationship - combining two parts to make a whole. - Using the ten frame/egg boxes to support addition of single digits—counting all and combining two groups. - Solving problems using concrete resources and pictorial images.
Year 1	- Combining two parts to make a whole (part whole model). - Learn number bonds to 20 and demonstrate related facts. - Add and subtract one digit numbers and two digit numbers to 20, including zero. - Bridging 10
Year 2	- Using concrete and pictorial representations to add a 2 digit number to a 1 digit number and a 2 digit number to a multiple of 10. - Using concrete and pictorial representations to add two, 2 digit numbers. - Using concrete and pictorial representations to add 3 single digit numbers. - Using the bar model to find missing digits.
Year 3	- Add two, three-digit numbers.
Year 4	- Adding numbers with up to 4 digits.
Year 5	- Adding numbers with more than 4 digits including decimals.
Year 6	- Adding multiple numbers together with up to 3 decimal places.
Subtraction	
Reception	- Using concrete strategies for counting. - Using the ten frames to support subtraction by taking away. - Solving problems using concrete resources and pictorial images.
Year 1	- Subtracting should begin with physical objects: counters, cubes, Dienes etc. - Subtraction by counting back. - Subtracting a single digit number from a single digit number and a single digit from a two digit by crossing out pictures. - Subtracting using the 'part, part whole' model. - Subtracting multiples of 10. - Regroup, rename and exchange when subtracting Dienes.
Year 2	- Using concrete and pictorial representations to subtract a 1 digit number from a 2 digit number. - Using concrete and pictorial representations to subtract a 2 digit number from a multiple of tens. - Using concrete and pictorial representations to subtract a 2 digit number from a 2 digit number. - Recognise and use the inverse relationship between addition and subtraction.
Year 3	- Subtract up to 3 digit numbers from other 3 digit numbers.
Year 4	- Subtract with numbers up to four digits, including exchanging.
Year 5	- Subtract with at least 4 digit numbers including to two decimal places.
Year 6	- Subtracting with increasingly more complex numbers including decimals.

Multiplication	
Reception	- Experiencing equal groups of objects.
Year 1	- Counting in multiples of 2, 5 and 10 from zero. - Solving multiplication problems using repeated addition.
Year 2	- Skip counting in multiples of 2, 3, 5 and 10 from zero. - Recall and reuse multiplication facts for the 2, 5 and 10 times tables. - Use multiplication sign (X) and equals sign (=) when writing out multiplication tables. - Understand that multiplication is commutative. - Solve multiplication problems using arrays and repeated addition.
Year 3	- Recall the 2, 5, 10, 3, 4 and 8 multiplication tables. - Multiply a 2 digit number by a 1 digit number using grid method initially, followed by a formal method for short multiplication.
Year 4	- Recall all times tables up to 12 x 12. - Multiply 2 and 3 digit numbers by a 1 digit number using a formal method for short multiplication.
Year 5	- Multiply up to 4 digit numbers by 2 digit numbers using long multiplication.
Year 6	- Short and long multiplication with up to 2 decimal places.
Division	
Reception	- Sharing practical objects.
Year 1	- Pupils should be taught to divide by working practically and the sharing.
Year 2	- Recall and use the division facts for 2, 5 and 10 multiplication tables. - Solve division problems in context by using concrete objects by sharing. - Solve division using grouping.
Year 3	- Using a formal short division method to divide 2 digit numbers by a 1 digit number.
Year 4	- Using the formal short division method to divide three-digit numbers by a one-digit number, including remainders.
Year 5	- Divide up to 4 digit numbers by 1 digit numbers using short division, including remainders.
Year 6	- Short division to divide by a 1 digit number, including remainders. - Using a formal long division method to divide by a 2 digit number.

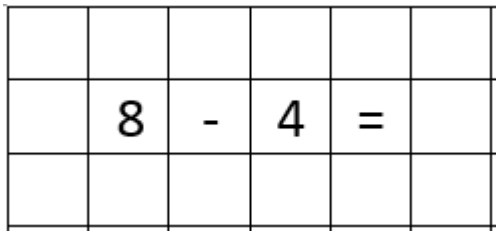
Reception

Addition (Reception)	
Explore 'part, part whole' relationship—combining two parts to make a whole.	Making 6:   
Using the ten frame/egg boxes to support addition of single digits—counting all/combining two groups.	

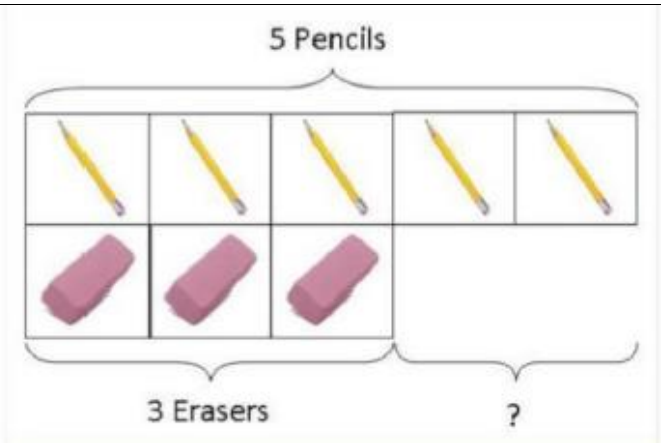
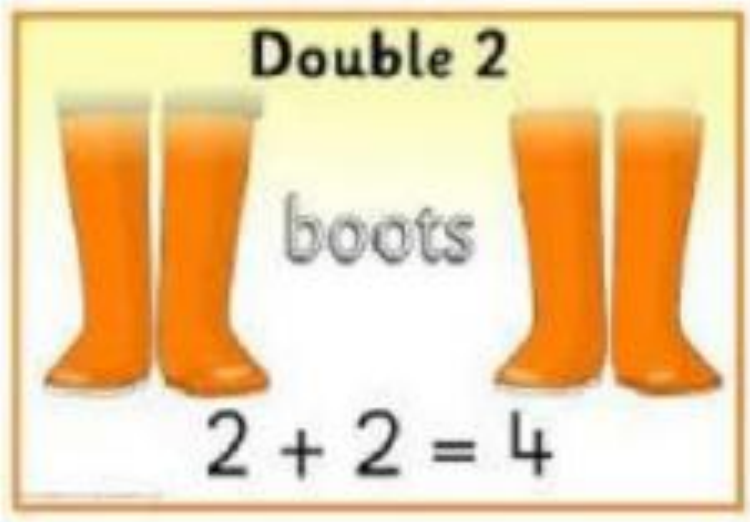
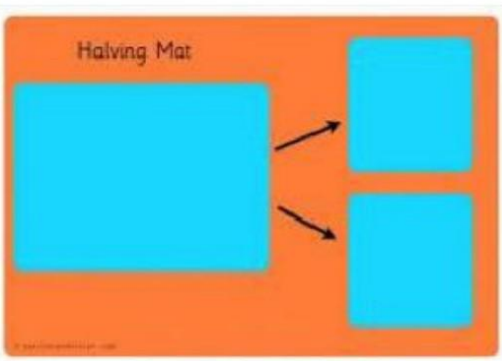
<table>
<tr><td>Solving problems using concrete resources and pictorial images.</td><td>Sara has 2 apples.
Jon has 5 apples.
How many apples do they have altogether?
How many more apples does Jon have than Sara?

 </td></tr>
<tr><td colspan="2">Subtraction (Reception)</td></tr>
<tr><td>Using concrete strategies for counting.</td><td>Taking away after counting out practical equipment. Children are encouraged to physically remove items using touch counting.
 

By touch counting and dragging in this way, it always children to keep track of how many they are removing so they don’t have to keep recounting. They will then touch count the amount that are left to reveal the answer.

Those who are ready may record their answers.</td></tr>
<tr><td>Using the ten frames to support subtraction by taking away.</td><td>
 

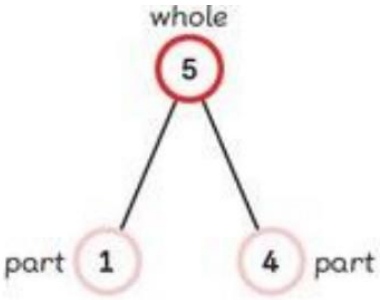
<table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr></table></td></tr>
<tr><td>Solving problems using concrete resources and pictorial images.</td><td>Peter has 5 pencils and 3 erasers. How many more pencils than erasers does he have?</td></tr>
</table>

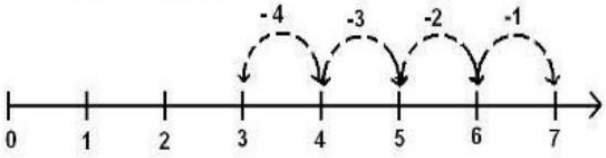
	
Multiplication (Reception)	
Experiencing equal groups of objects. They will think about doubling when solving practical problems.	 There are 6 pairs of socks. How many socks are there altogether? 
Division (Reception)	
Sharing practical objects. Hearing and being exposed to language to describe half and seeing visual representations.	 

Year 1

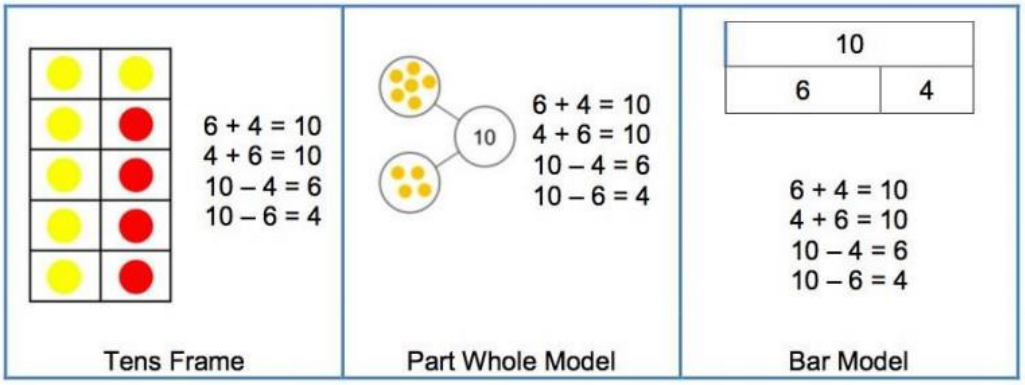
<table>
<tr><th colspan="2">Addition (Year 1)</th></tr>
<tr><td>Combining two parts to make a whole (part whole model).

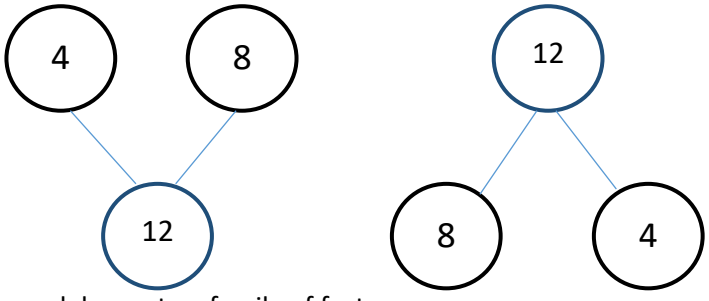
Joining two groups and then recounting all objects (lots of practice making 10 and numbers to 10 e.g. 6 + 4 = 10 or 3 + 5 = 8).</td><td>





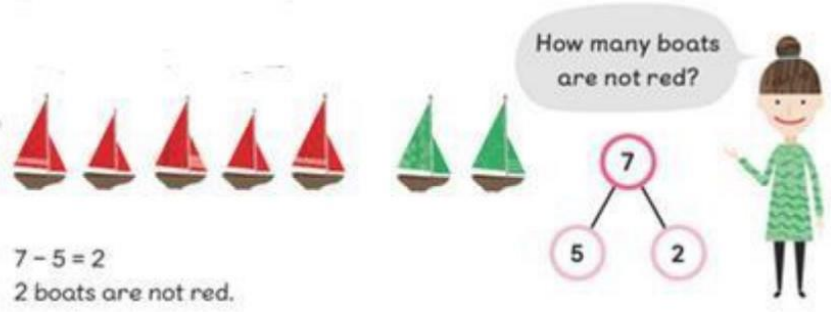
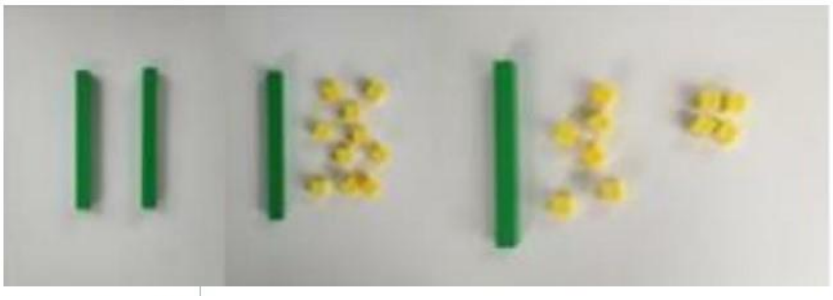
<table>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>4</td><td>+</td><td>3</td><td>=</td><td>7</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Learn number bonds to 20 and demonstrate related facts.

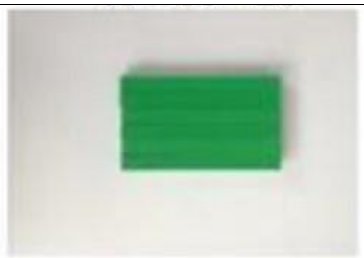
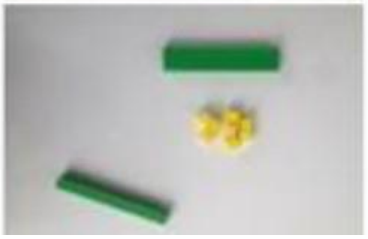
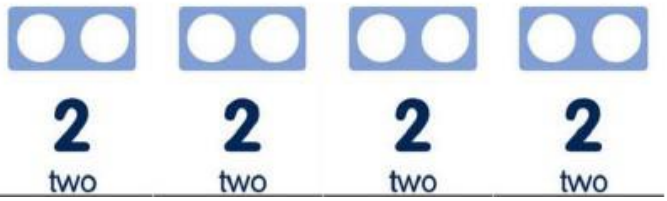
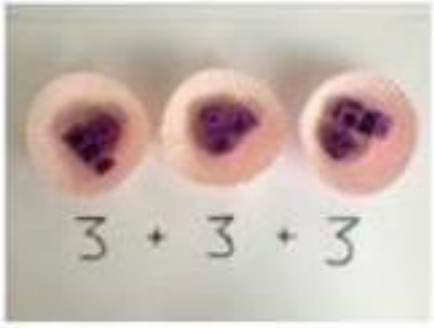
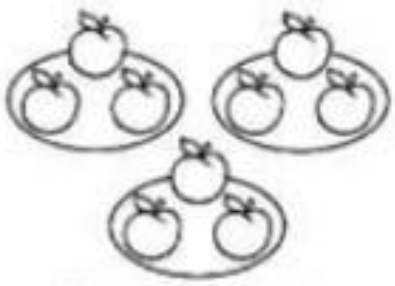
Addition and subtraction taught alongside each other so pupils can see the relationship between the facts.</td><td>


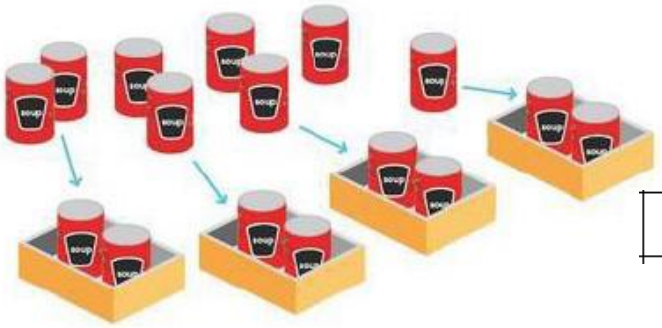


These part-whole models create a family of facts:
<table>
<tr><td></td><td>8</td><td>+</td><td>4</td><td>=</td><td>1</td><td>2</td></tr>
<tr><td></td><td>4</td><td>+</td><td>8</td><td>=</td><td>1</td><td>2</td></tr>
<tr><td>1</td><td>2</td><td>-</td><td>8</td><td>=</td><td></td><td>4</td></tr>
<tr><td>1</td><td>2</td><td>-</td><td>4</td><td>=</td><td></td><td>8</td></tr>
</table>
</td></tr>
</table>

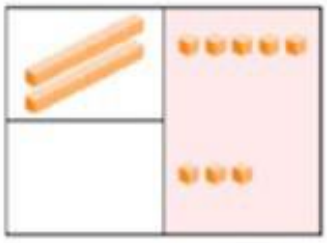
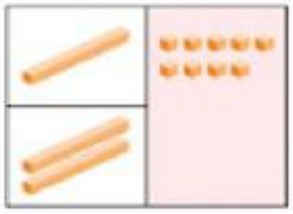
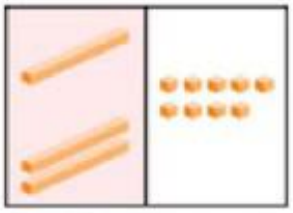
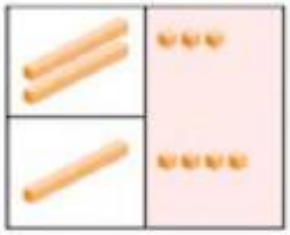
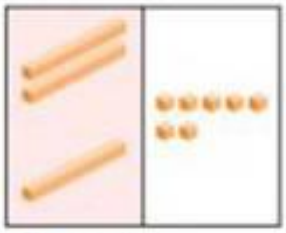
Add and subtract 1 digit numbers and 2 digit numbers to 20, including zero.	 | | | \

Subtraction by counting back.	 1 2 - 4 = 8
Subtracting a single digit number from a single digit number and a single digit from a 2 digit by crossing out pictures.	 1 5 - 4 = 1 1
Subtracting using the 'part, part whole' model (include problem solving with missing dig-its). ? - 5 = 2	
When subtracting using Dienes children are taught to regroup (rename) a ten rod for 10 ones and then subtract from those. *This may be introduced in Year 1 and is continued in Year 2.*	 2 0 - 1 6 = 4

Subtracting multiples of 10. Using the vocabulary of 1 ten, two tens, etc. alongside 10, 20, 30.	  4 0 = 6 0 - 2 0 3 8 - 1 0 = 2 8
Multiplication (Year 1)	
Counting in multiples of 2, 5 and 10 from zero. Children should count the number of groups on their fingers as they are skip counting.	2 4 6 8 4 groups of 2 = 8 4 x 2 = 8  4 x 2 = 8
When moving to pictorial/written calculations the language is important.	This image represents two groups of 4, or 4 ‘twice’.
Solving multiplication problems using repeated addition.	 

	3 + 3 + 3 = 9 3 x 3 = 9
Division (Year 1)	
Pupils should be taught to divide by working practically and the sharing should be shown below the whole to familiarise children with the concept of the whole.	There are 8 cans.  10 ÷ 2 = 5 There are 4 boxes of cans.

Year 2

Addition (Year 2)	
Using concrete and pictorial representations to add a 2 digit number to a 1 digit number and a 2 digit number to a multiple of 10.	 – Step 1 Add the ones.  Step 2 Add the tens. 1 ten + 2 tens = 3 tens  19 + 20 = 39
Using concrete and pictorial representations to add two, 2 digit numbers.	Step 1 Add the ones. 3 ones + 4 ones = 7 ones  Step 2 Add the tens. 2 tens + 1 ten = 3 tens  23 + 14 = 37

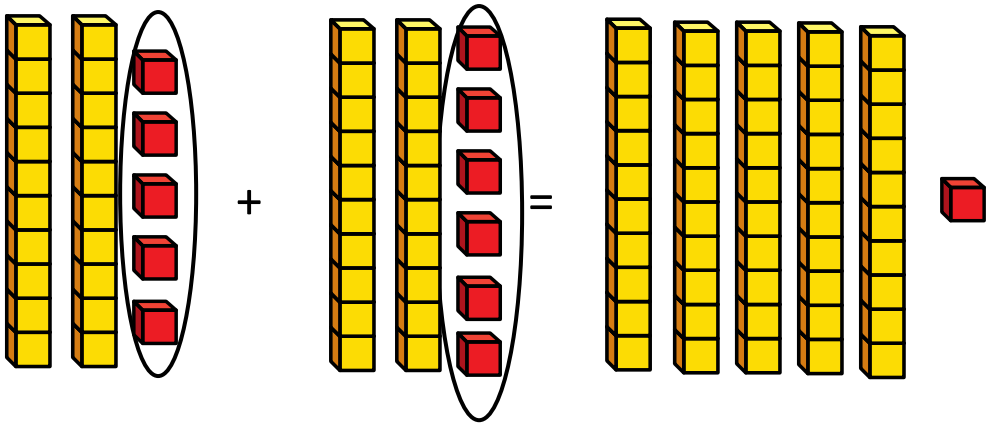
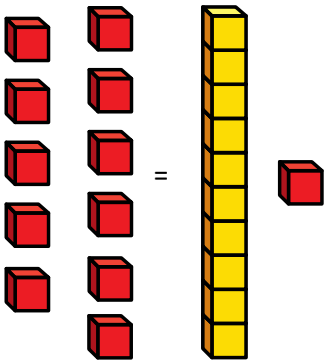
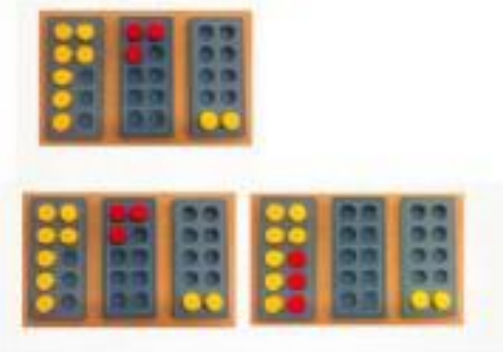
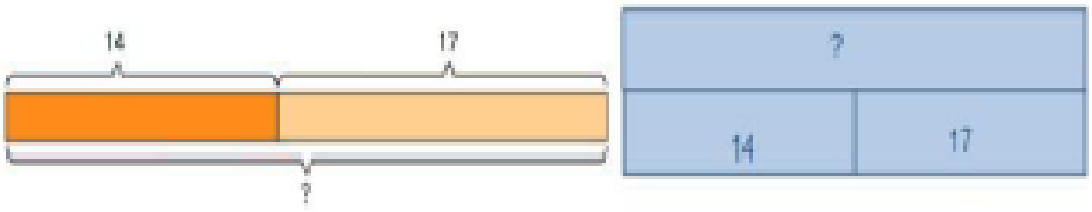
	tens	ones
	2	5
+		3
	2	8

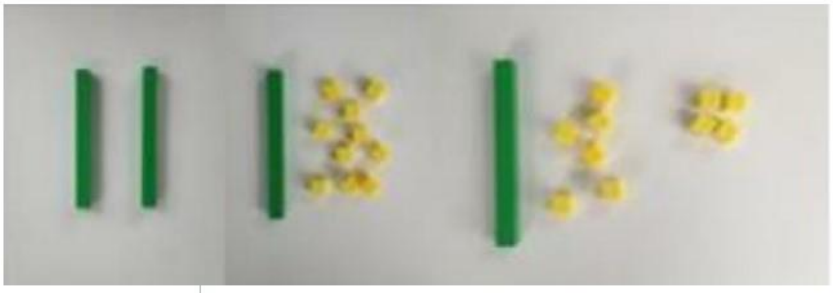
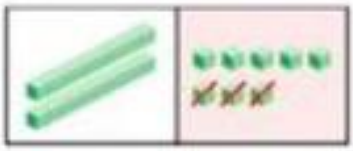
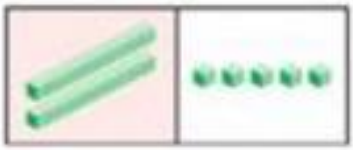
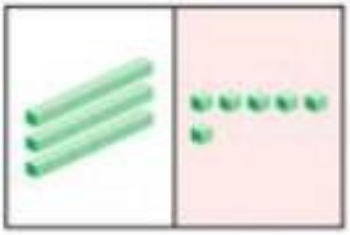
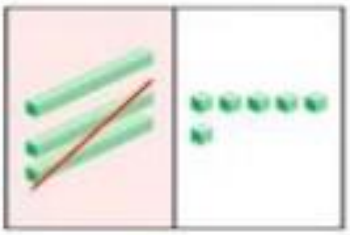
	tens	ones
	1	9
+	2	0
		9

	tens	ones
	1	9
+	2	0
	3	9

	tens	ones
	2	3
+	1	4
		7

	tens	ones
	2	3
+	1	4
	3	7

Using concrete and pictorial representations to add two, 2 digit numbers.	 Add 25 and 26. 5 ones add 6 ones = 11 ones. Regroup 11 ones to equal 1 ten and 1 one.  |	tens | ones | | | 2 | 5 | | + | 2 | 6 | | | 5 | 1 | | | 1 | |
Using concrete and pictorial representations to add 3 single digit numbers.	 | 7 | + | 3 | + | 2 | = | Leads to | 1 | 0 | + | 2 | = |
Using the bar model to find missing digits. It is important for the children to use the bar model in this way to encourage the use of it to aid problem solving.	 Helen has 14 sticks. Her friend has 17. How many do they have together?
Subtraction (Year 2)	

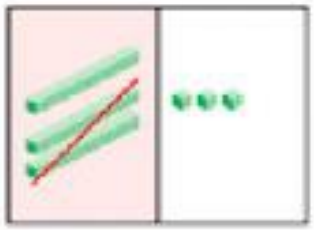
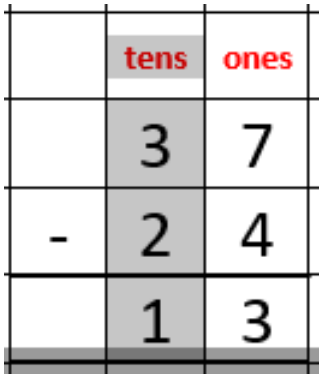
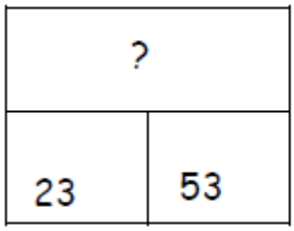
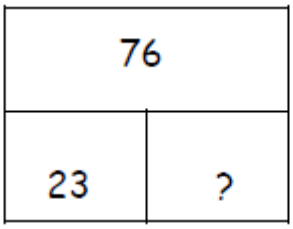
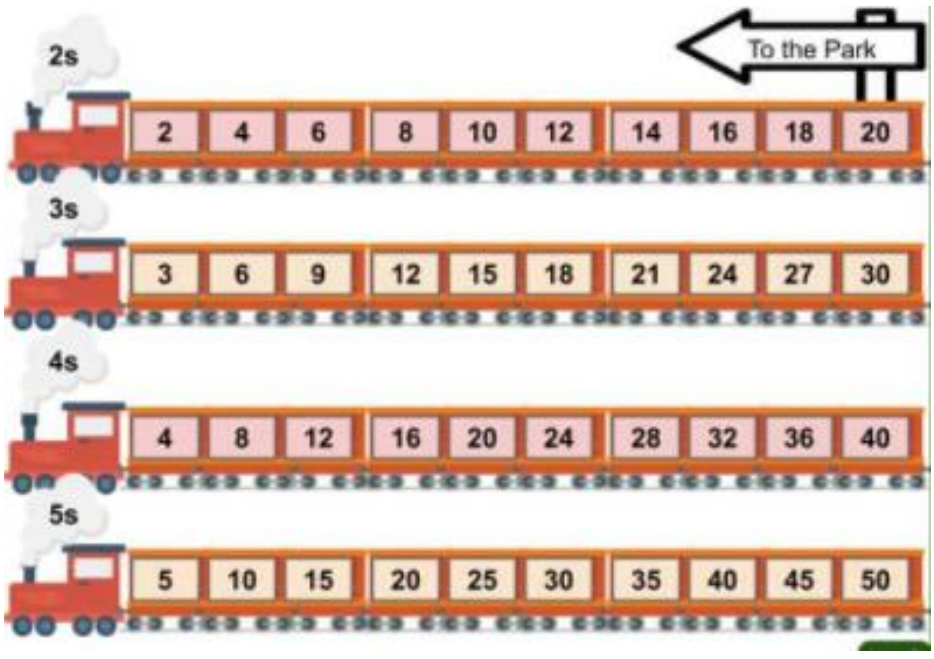
When subtracting using Dienes children are taught to regroup (rename) a ten rod for 10 ones and then subtract from those. *Continued from Year 1.*	 2 0 - 1 6 = 4
Using concrete and pictorial representations to subtract a 1 digit number from a 2 digit number.	Step 1 Subtract the ones. 8 ones − 3 ones = 5 ones  Step 2 Subtract the tens.  28 − 3 = 25
Using concrete and pictorial representations to subtract a 2 digit number from a multiple of tens.	Step 1 Subtract the ones.  Step 2 Subtract the tens. 3 tens − 2 tens = 1 ten  36 − 20 = 16

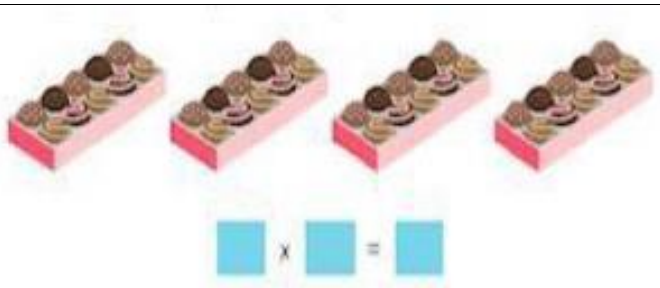
	tens	ones
	2	8
-		3
		5

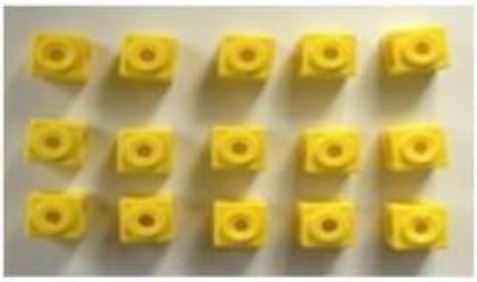
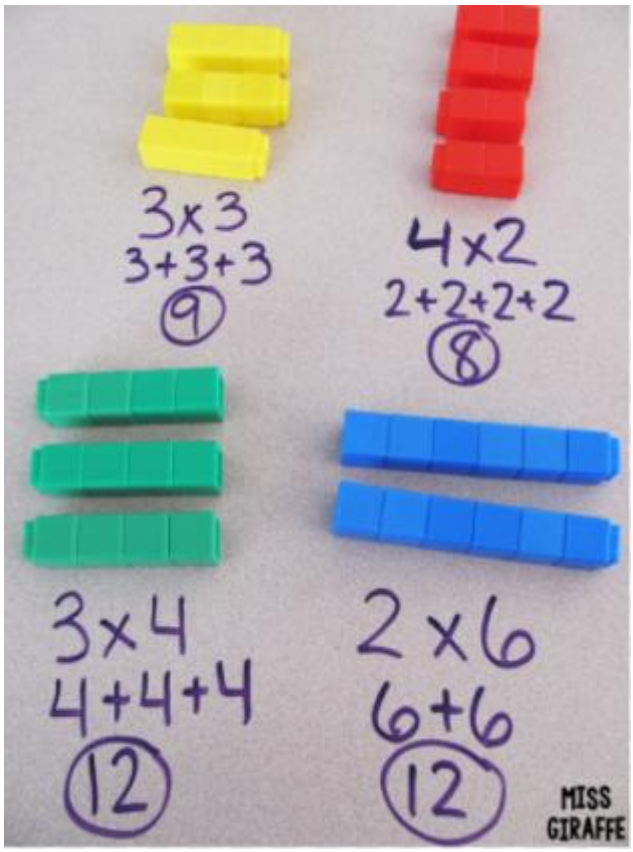
	tens	ones
	2	8
-		3
	2	5

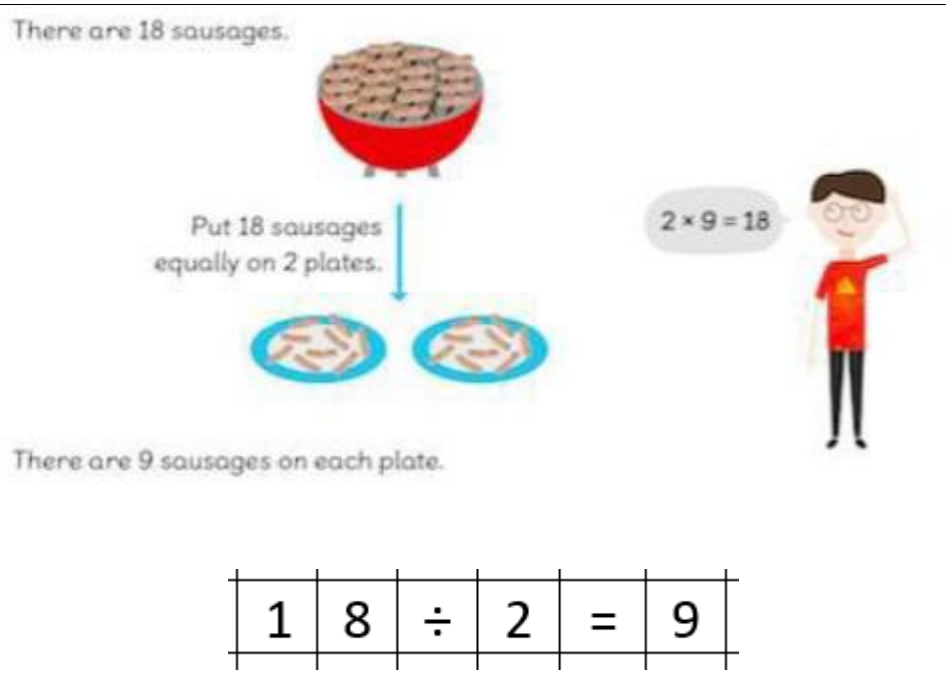
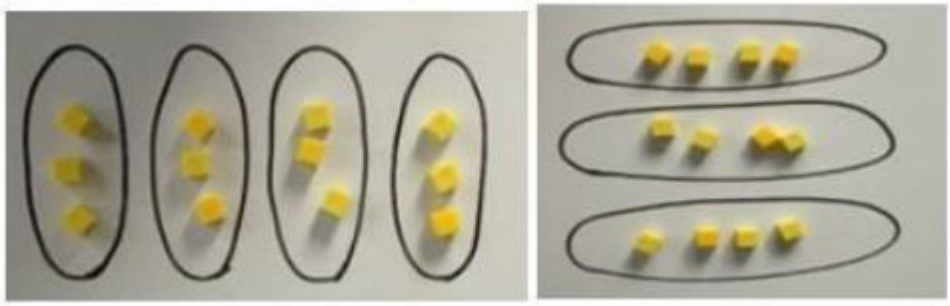
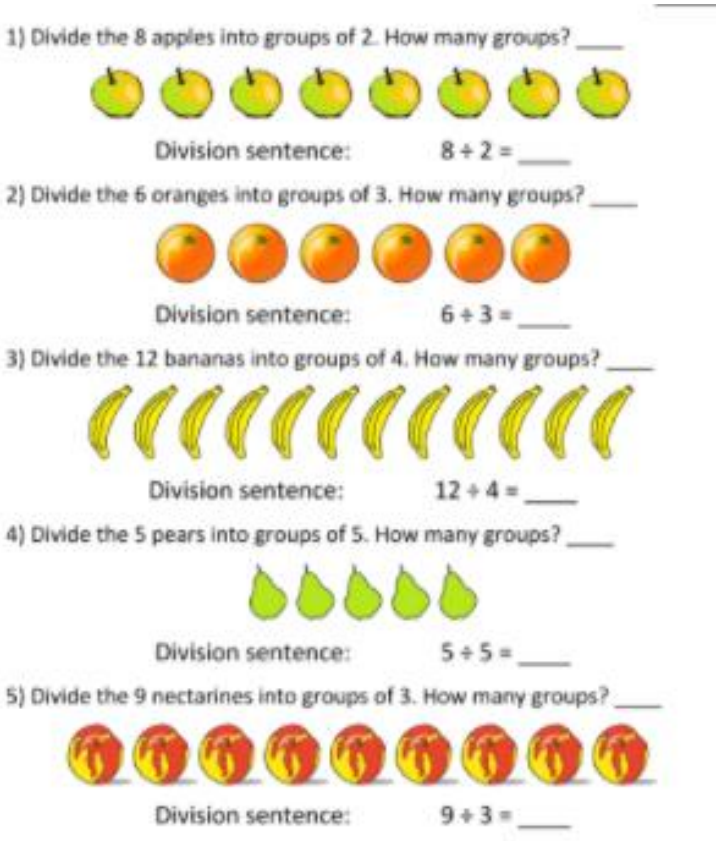
	tens	ones
	3	6
-	2	0
		6

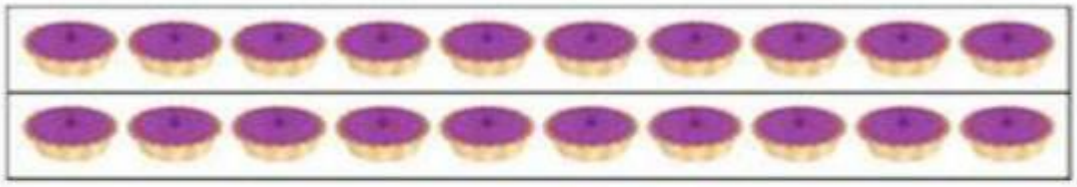
	tens	ones
	3	6
-	2	0
	1	6

Using concrete and pictorial representations to subtract a 2 digit number from a 2 digit number.	Subtract 24 from 37. Step 1 Subtract the ones. 7 ones − 4 ones = 3 ones Step 2 Subtract the tens. 3 tens − 2 tens = 1 ten  37 − 24 = 13 
Recognise and use the inverse relationship between addition and subtraction.	 
Multiplication (Year 2)	
Skip counting in multiples of 2, 3, 5 and 10 from zero.	

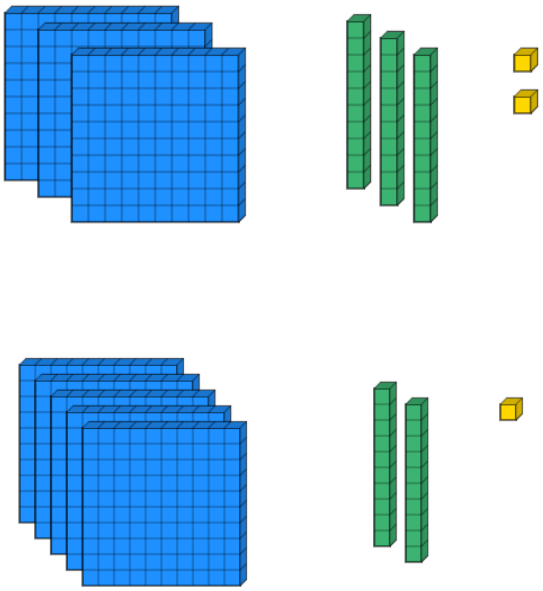
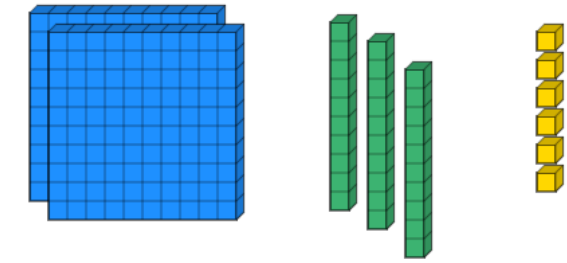
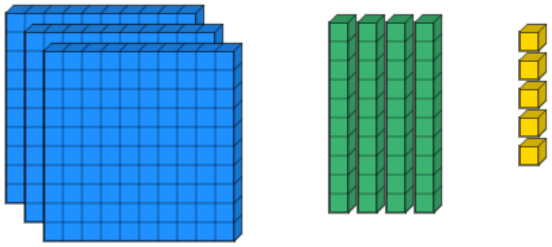
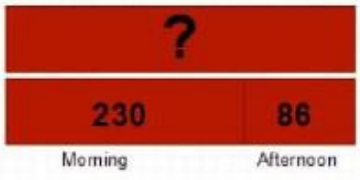
Recall and reuse multiplication facts for the 2, 5 and 10 times tables.	 1 x 5 = 5 2 x 5 = 10 3 x 5 = 15 4 x 5 = 20 5 x 5 = 25 6 x 5 = 30 7 x 5 = 35 8 x 5 = 40 9 x 5 = 45 10 x 5 = 50
Use multiplication sign (X) and equals sign (=) when writing out multiplication tables.	 4 X 1 0 = 4 0
Understand that multiplication is commutative. Pupils should understand that an array can represent different equations and that as multiplication is commutative the order doesn't impact the answer.	$8 \times 2 = 16$ 1 3 5 7 9 11 13 15 2 4 6 8 10 12 14 16 $2 \times 8 = 16$ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Solve multiplication problems using arrays and repeated addition.	 3 x 5 = ☐ 5 x 3 = ☐ 
Division (Year 2)	
Recall and use the division facts for 2, 5 and 10 multiplication tables.	10 ÷ 10 • • 5 20 ÷ 10 • • 7 70 ÷ 10 • • 2 50 ÷ 10 • • 6 60 ÷ 10 • • 1 100 ÷ 10 • • 10

Solve division problems in context by using concrete objects by sharing.	 1 8 ÷ 2 = 9
Solve division problems in context using arrays.	
Solve division using grouping.	

Use the inverse operation. This should be taught alongside both multiplication and division.	Make a family of multiplication and division facts.  $2 \times 10 = 20$ ——— $20 \div 10 =$ ☐ $10 \times 2 = 20$ ——— $20 \div 2 =$ ☐

Year 3

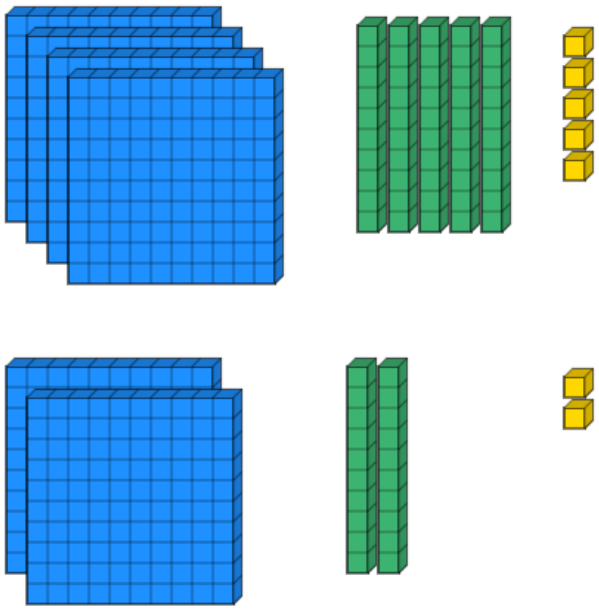
Addition (Year 3)	
Add two, three-digit numbers. Children will first use equipment to support understanding of place value, starting without exchanging / renaming then gradually move onto exchanging / renaming.	Add the ones column, then the tens column and finally the hundreds column.  + h t o 4 3 2 + 5 2 1 9 5 3
	Add the ones column, then the tens column and finally the hundreds column. If any column adds up to an amount greater than 9, they are exchanged/renamed in order to maintain a single digit value in each column. As shown here, 11 ones are exchanged for 1 ten and 1 one.  +  h t o 2 3 6 + 3 4 5 5 8 1 1
Bar Modelling Children are encouraged to use the bar model in this way to aid problem solving.	**Bar Model to support understanding of problem solving:** A man sold 230 balloons at a carnival in the morning. He sold another 86 balloons in the evening . How many balloons did he sell in all? 

Subtraction (Year 3)

Subtract up to 3 digit numbers from other 3 digit numbers.

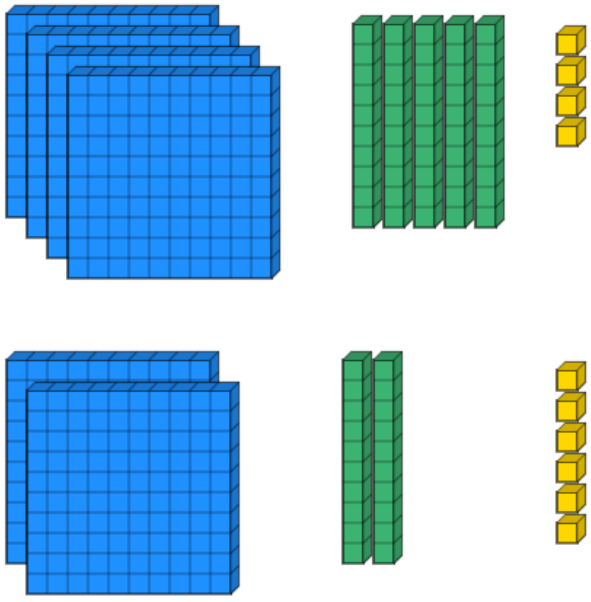
Children will first use equipment to support understanding of place value. Only when children are secure with method should exchanging be introduced.

First subtract the ones, then the tens and then the hundreds.



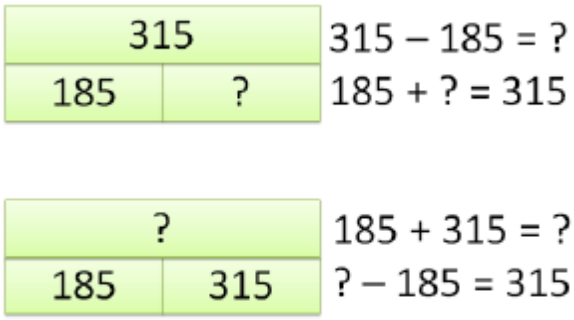
	h	t	o
	4	5	5
+	2	2	2
	2	3	3

When a digit of greater value is being subtracted away from another in the same column, children are taught to exchange/'steal' from the next column in order to make the subtraction possible. As shown in the example below, 6 ones cannot be subtracted from 4 ones, therefore the 4 ones are exchanged for 1 ten and 4 ones (14), leaving 4 tens instead of the initial 5 tens.



	h	t	o
	4	$^{4}\not{5}$	$^{1}4$
+	2	2	6
	2	2	8

Bar Modelling: Children can use the bar model in this way to aid problem solving.



Multiplication (Year 3)

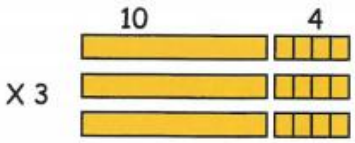
Recall the 2, 5, 10, 3, 4 and 8 multiplication tables.

Multiply a 2 digit number by a 1 digit number.

This will begin with the grid method and then progress to the formal written method of short multiplication.

Grid Method

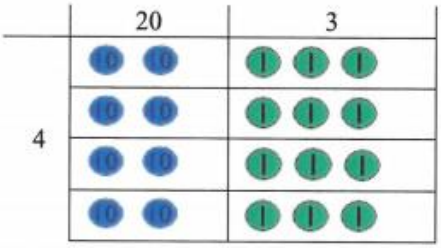
14 x 3



Record:

x	10	4	
3	30	12	= 42

23 x 4

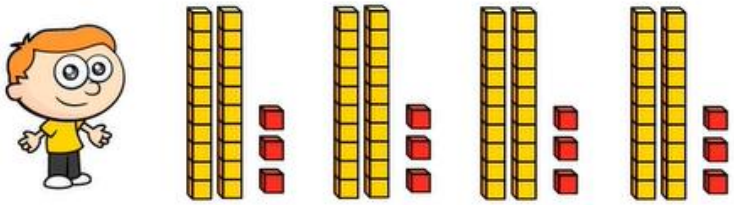


Record:

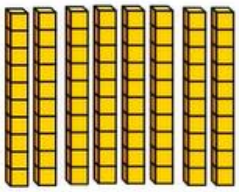
x	20	3	
4	80	12	= 92

Short Multiplication

Calculate 4 × 23

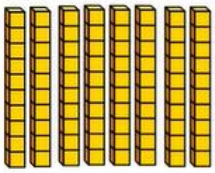


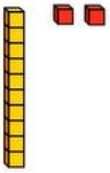
The tens and ones are grouped together.



$4 \times 20 = 80$ $4 \times 3 = 12$

The 12 ones are exchanged for 1 ten and 2 ones.

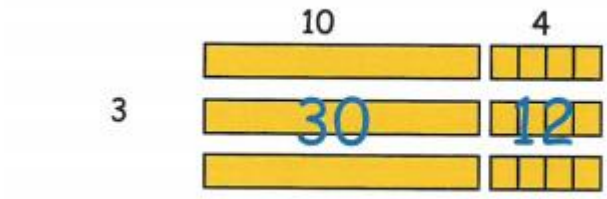
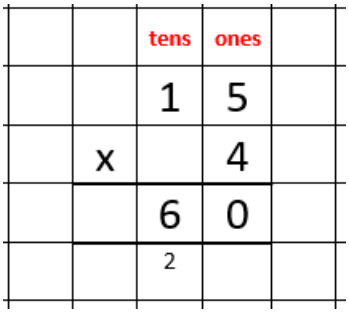
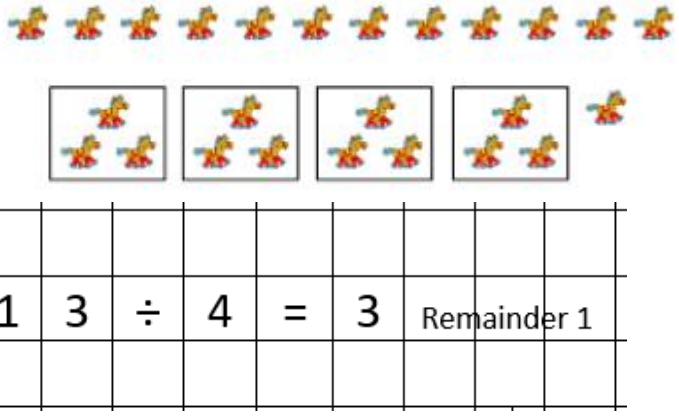
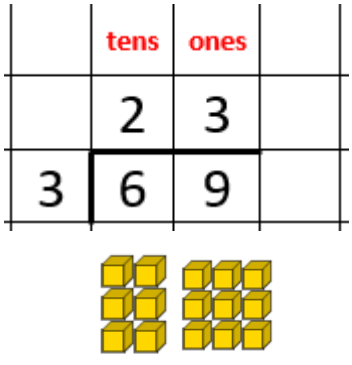


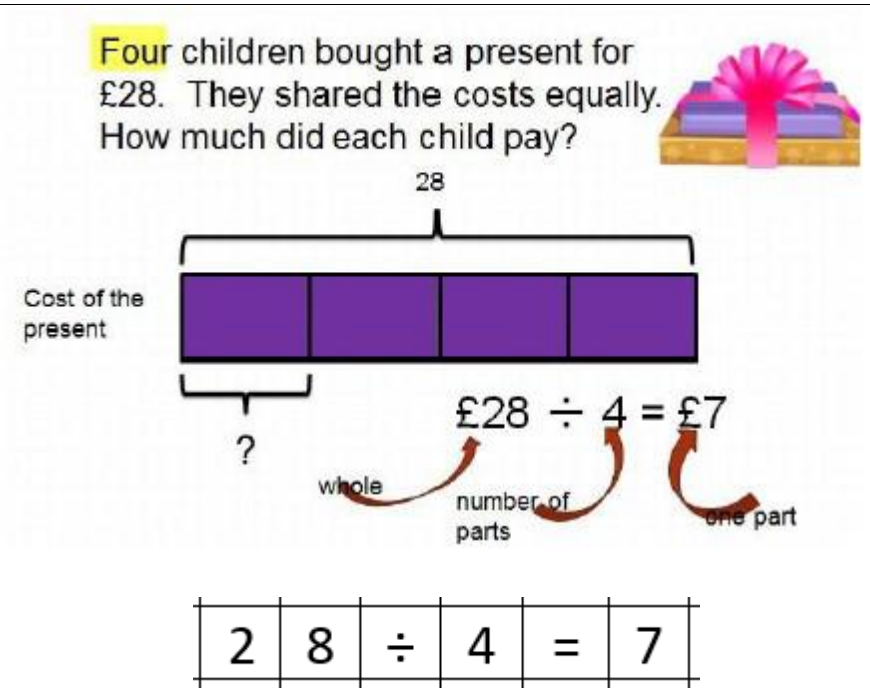


$4 \times 20 = 80$ $4 \times 3 = 12$

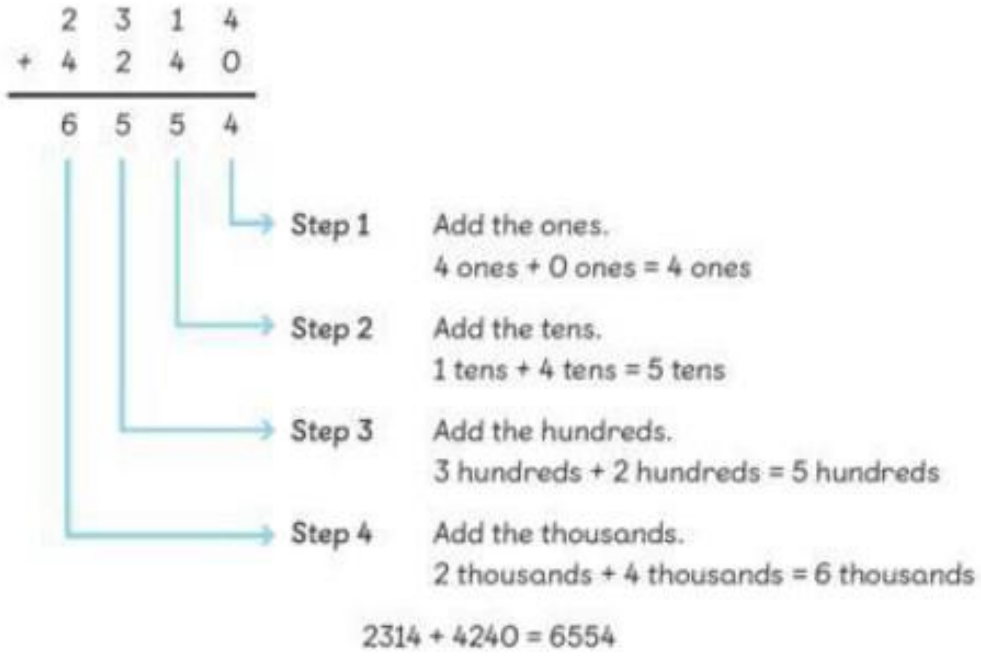
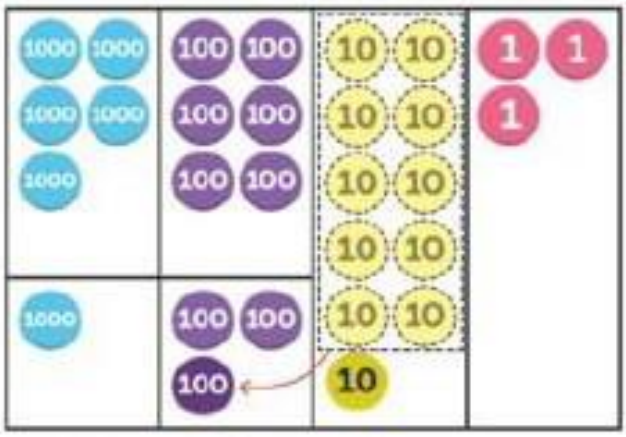
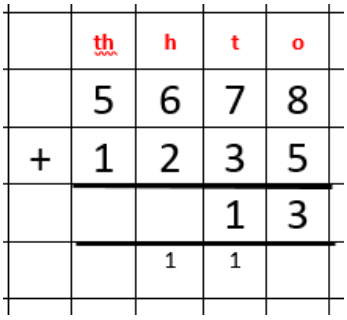
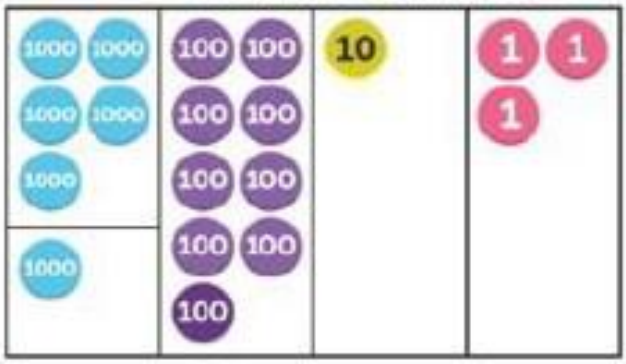
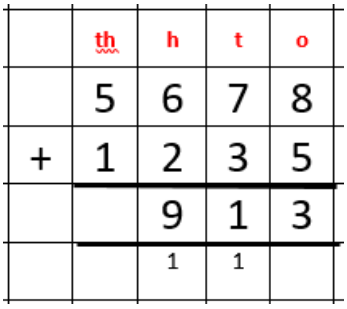
$80 + 12 = 92$

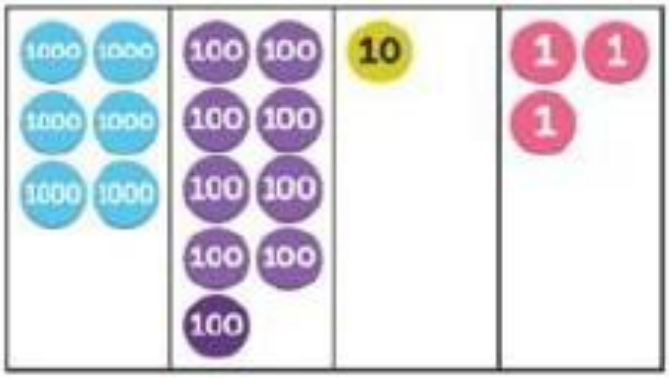
		tens	ones	
		2	3	
	x		4	
		9	2	
		1		

Partitioning to multiply 2 digit numbers by a 1 digit number.	14 x 3 
Bar Modelling: Children can use the bar model in this way to aid problem solving.	4 children go to the cinema. They each pay £15. How much do they spend altogether? Whole unknown 
Division (Year 3)	
Dividing and grouping. Understanding the concept of remainders.	Start with using the real objects-or objects that represent the calculation. 
Using the formal short division method to divide 2 digit numbers by a one-digit number.	Children should be reminded of their place value when setting out the calculation, for example, 69 is equal to 6 tens and 9 ones. *How many 3s in 6? Record above as 2 tens* *How many 3s in 9? Record above as 3 ones* 

	Once children demonstrate a full understanding of remainders, as well as the short division method shown above, they are taught to use the method when remainders occur in the calculation (e.g. 72 ÷ 3). When this happens, children are taught to 'carry' the remainder onto the next digit in the calculation.
Bar Modelling: Children can use the bar model in this way to aid problem solving.	

Year 4

Addition (Year 4)	
Adding numbers with up to 4 digits. Again this should start with the children using equipment to support and lots of discussion about the values of digits.	 2314 + 4240 = 6554 Step 2 Add the tens. 7 tens + 3 tens + 1 ten = 11 tens Rename the tens. 11 tens = 1 hundred and 1 ten   Step 3 Add the hundreds. 6 hundreds + 2 hundreds + 1 hundred = 9 hundreds  

<table>
<tr>
<td></td>
<td>
Step 4 Add the thousands.
5 thousands + 1 thousand = 6 thousands


<table>
<tr><td></td><td>th</td><td>h</td><td>t</td><td>o</td></tr>
<tr><td></td><td>5</td><td>6</td><td>7</td><td>8</td></tr>
<tr><td>+</td><td>1</td><td>2</td><td>3</td><td>5</td></tr>
<tr><td></td><td>6</td><td>9</td><td>1</td><td>3</td></tr>
<tr><td></td><td></td><td>1</td><td>1</td><td></td></tr>
</table>
</td>
</tr>
<tr>
<td>Using the bar model to find missing digits.</td>
<td>
Alison jogs 6,860 metres and Calvin jogs 5,470 metres. How far do they jog altogether?

This method is encouraged to help children choose the correct operation required to solve the problem.
</td>
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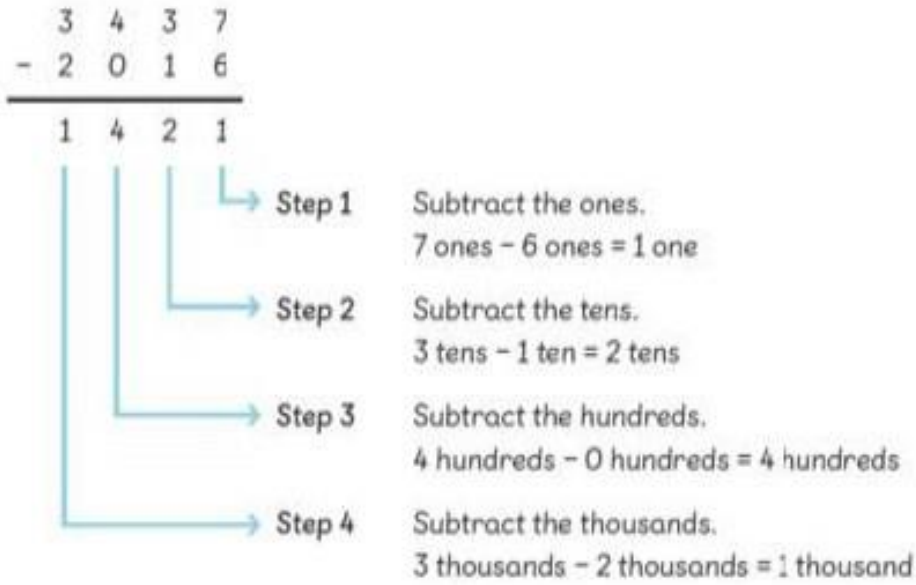
<tr>
<td colspan="2">Subtraction (Year 4)</td>
</tr>
<tr>
<td>Subtract with numbers up to four digits, including exchanging.</td>
<td>


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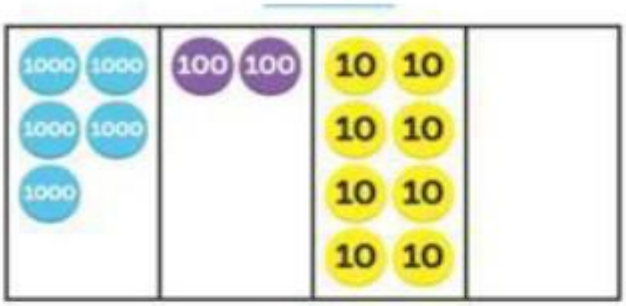
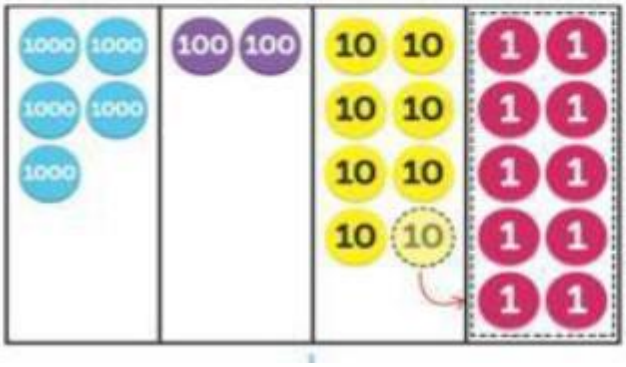
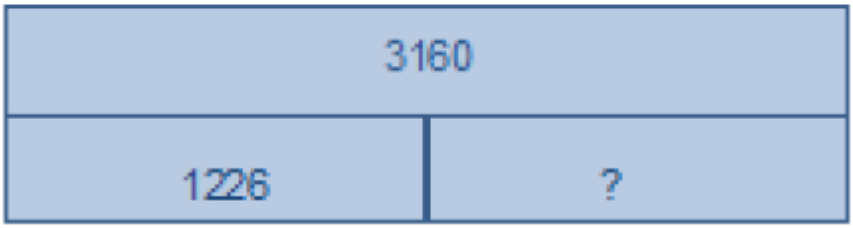




	th	h	t	o
	2	$^{6}\cancel{7}$	$^{1}5$	4
-	1	5	6	2
	1	1	9	2

Using the bar model to find missing digits.

There are 3,160 books in a shop. 1,226 are in English and the rest are in French. How many French books are there?



Multiplication (Year 4)

Recall all times tables up to 12 x 12.

Children use short multiplication.

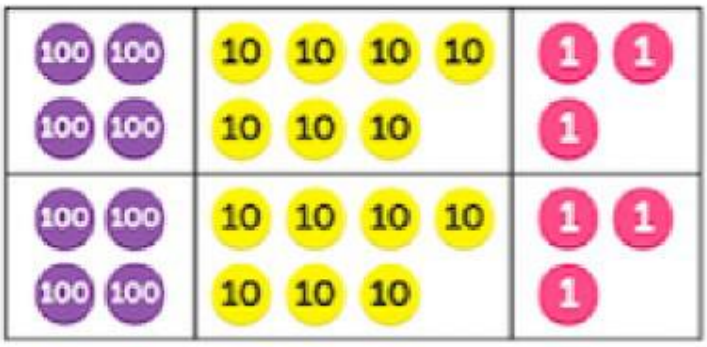
Expanded column multiplication can be used to support.

Short Multiplication

	h	t	o
	3	1	4
x			3
	9	4	2
		1	

Expanded Column Method

314
x 3
12 (3 x 4)
30 (3 x 10)
+ 900 (3 x 300)
942

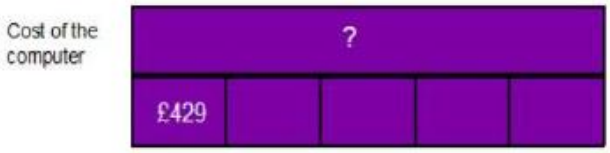


	h	t	o
	4	7	3
x			2
	9	4	6
	1		

Multiply using the bar model

A computer costs 5 times as much as a television. The television costs £429.

How much does the computer cost?



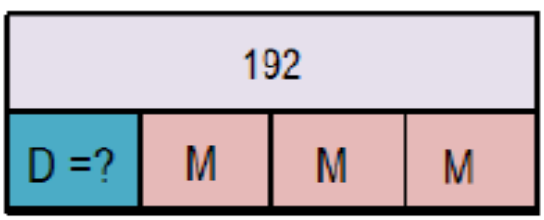
Division (Year 4)

Using the formal short division method to divide three-digit numbers by a one-digit number.

	h	t	o	
	0	2	5	r1
5	1	12	26	

Divide using the bar model

Desmond and Melissa collect cards. They have 192 cards in all. Melissa has three times as many cards as Desmond. How many cards does Desmond have?



Year 5

<table>
<tr><th colspan="2">Addition (Year 5)</th></tr>
<tr><td>Adding numbers with more than 4 digits including decimals.

Using place value charts and place value counters is key when understanding adding decimals.</td><td>
<table>
<tr><td></td><td></td><td>T</td><td>O</td><td>th</td><td>h</td></tr>
<tr><td></td><td>£</td><td>2</td><td>3.</td><td>5</td><td>9</td></tr>
<tr><td>+</td><td>£</td><td></td><td>7.</td><td>5</td><td>5</td></tr>
<tr><td></td><td>£</td><td>3</td><td>1.</td><td>1</td><td>4</td></tr>
<tr><td></td><td></td><td>1</td><td>1</td><td>1</td><td></td></tr>
</table>

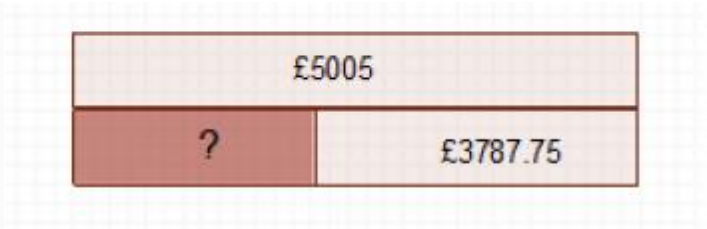
Decimal points placed on the intersections of the lines.
</td></tr>
<tr><td>Using the bar model to find missing digits.</td><td>This method can help guide children to the correct operation.

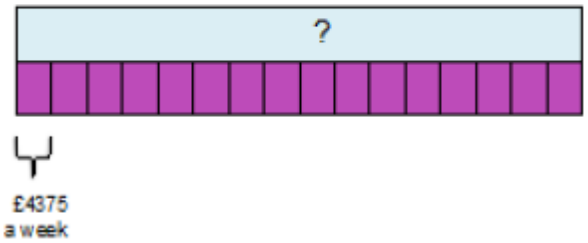
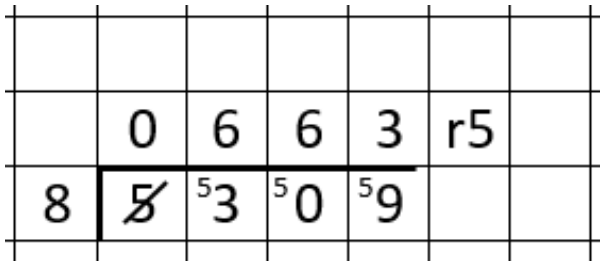
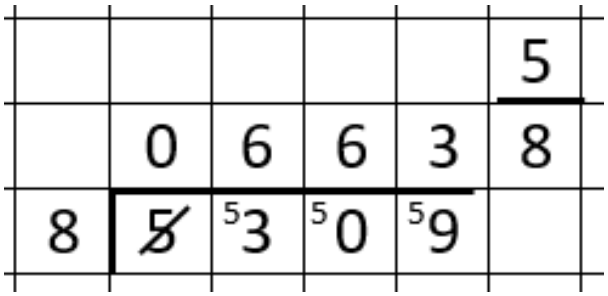
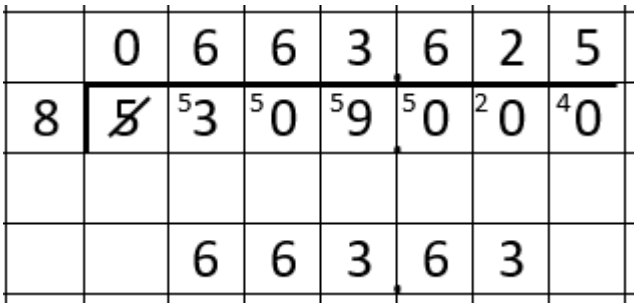
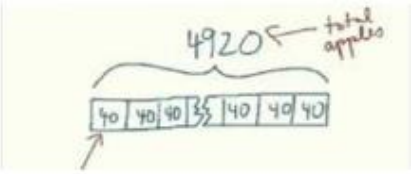
McDonald’s sold £9957.69 worth of burgers and £1238.50 worth of chicken nuggets. How much money did they take altogether?

<table>
<tr><td colspan="2">?</td></tr>
<tr><td>£957.68</td><td>£1238.5</td></tr>
</table>
</td></tr>
<tr><th colspan="2">Subtraction (Year 5)</th></tr>
<tr><td>Subtract with at least 4 digit numbers including to two decimal places.

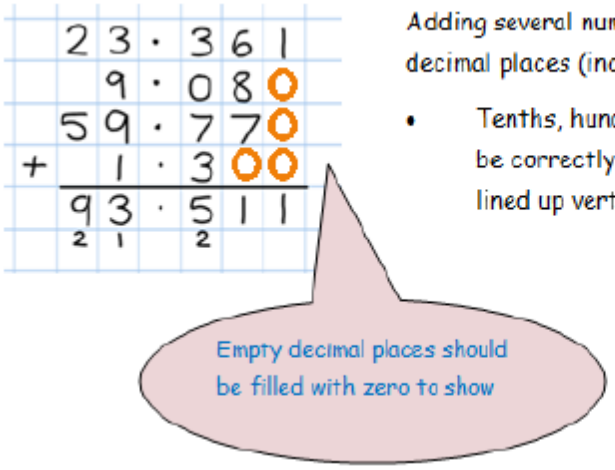
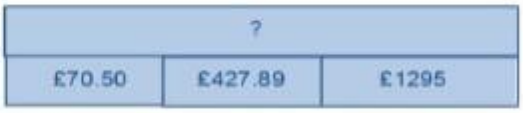
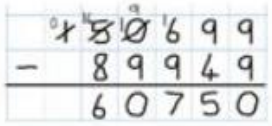
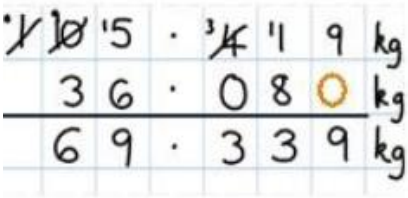
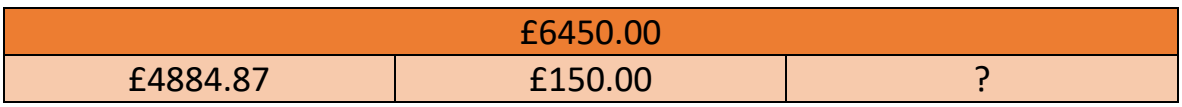
This links closely to money, measures and decimals.</td><td>
<table>
<tr><td></td><td>TTh</td><td>Th</td><td>H</td><td>T</td><td>O</td><td></td></tr>
<tr><td></td><td>$^{2}\not{3}$</td><td>$^{10}\not{1}$</td><td>$^{1}0$</td><td>$^{4}\not{5}$</td><td>$^{1}6$</td><td></td></tr>
<tr><td>-</td><td></td><td>2</td><td>1</td><td>2</td><td>8</td><td></td></tr>
<tr><td></td><td>2</td><td>8</td><td>9</td><td>2</td><td>8</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

<table>
<tr><td></td><td>TTh</td><td>Th</td><td>H</td><td>T</td><td>O</td><td></td></tr>
<tr><td></td><td>$^{6}\not{7}$</td><td>$^{10}\not{1}$</td><td>$^{1}6$</td><td>$^{8}\not{9}$</td><td>$^{1}0$</td><td></td></tr>
<tr><td>-</td><td></td><td>3</td><td>7</td><td>2</td><td>5</td><td></td></tr>
<tr><td></td><td>6</td><td>8</td><td>9</td><td>6</td><td>5</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
</td></tr>
</table>

Using the bar model to find missing digits.	**A holiday to Lapland costs £5005 for a family of four, the Smiths have saved £3787.75 how much more money do they need?** 
Multiplication (Year 5)	
Multiply up to 4 digit numbers by 2 digit numbers using long multiplication.	**Begin by laying out the calculation as shown below, with the larger number on top, two rows below, a place holder (indicated by the red zero) and another row for the answer.** **Multiply the digit in the 'ones' column of the bottom number by all the digits above, moving from right to left (any 'carrying' needs to be done underneath the numbers).** **Repeat this process with the digit in the 'tens' column.** **This will break the calculation down into two parts, shown by the brackets. (It is good to explain the impact that the 'place holder' has on this.)** **Finally, add together the two parts of the** **The first space under the calculation** Th H T O 5 6 x 2 7 3 9 2 (5 6 x 7) 1 1 2 0 (5 6 x 2 0) 1 5 1 2 Th H T O 1 2 3 4 x 3 6 7 4 0 4 (1 2 3 4 x 6) 3 7 0 2 0 (1 2 3 4 x 3 0) 4 4 4 2 4

Using the bar model to support multiplication	The cost to run a sports centre is £4375 a week, how much would it cost to run for 16 weeks? 
Division (Year 5)	
Divide up to 4 digit numbers by 1 digit numbers using short division, including numbers that have remainders.	**Answers (quotients) that are not whole numbers can be shown with remainders, represented as fractions or as decimals (rounding to one or two decimal places).**   
Using the bar model to support division	**Bar Model to support understanding of problem solving:** Frank has 4920 apples. He needs to put them into baskets of 40. How many baskets does he need? 

Year 6

Addition (Year 6)	
Adding multiple numbers together with up to 3 decimal places.	 Adding several numbers with different numbers of decimal places (including money and measures): • Tenths, hundredths and thousandths should be correctly aligned, with the decimal point lined up vertically including in the answer row.
Using the bar model to support addition	Jack went on holiday. His flight cost £70.50, the hotel £1295 and spending money £427.89. How much did Jack spend on his holiday? 
Subtraction (Year 6)	
Subtracting with increasingly more complex numbers including decimals.	Very important to use in a range of contexts- measures and money.  
Using the bar model to support subtraction	Chloe wants to buy a new car for £6450. She has £488587.87 in her savings account. Her Dad gives her £150 for her birthday. How much more does she need to save? 

Multiplication (Year 6)

Short and long multiplication with up to 2 decimal places.

	o	t	h	
	3	1	9	
	x		8	
2	5	5	2	
	1	1		

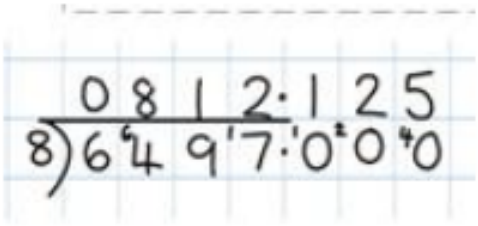
Using the bar model to support multiplication

If 5 friends went on holiday and each paid £579.75, what was the total cost?

Total?				
£579.75				

Division (Year 6)

Short division to divide by a 1 digit number.



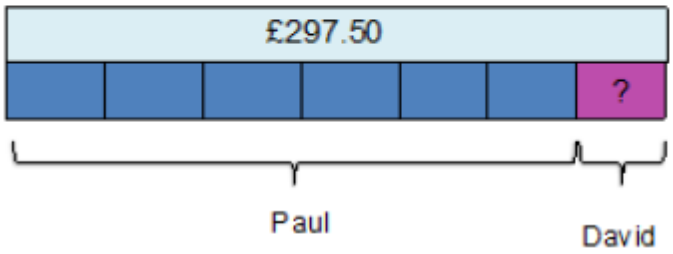
Short division with remainders: Pupils should continue to use this method, but with numbers to at least 4 digits, and understand how to express remainders as fractions, decimals, whole number remainders, or rounded numbers. Real life problem solving contexts need to be the starting point, where pupils have to consider the most appropriate way to express the remainder.

Long division to divide by 2 digit number.

```
13 | 1937
 - 1300   13 x 100
    637
 -  520   13 x 40
    117
 -  117   13 x 9
      0
```

Useful number facts:

13 x 9 = 117
13 x 10 = 130
13 x 20 = 260
13 x 30 = 390
13 x 40 = 520
13 x 100 = 1300

Answer = 100 + 40 + 9

Using the bar model to support division	Paul and David hire a car together at a cost of £297.50. Paul pays 6 times more than David. How much does David pay?