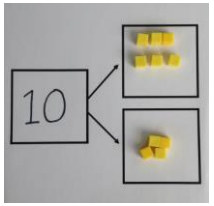
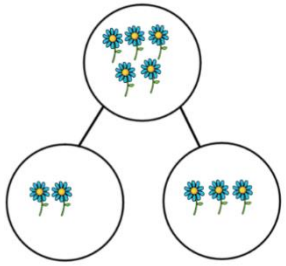
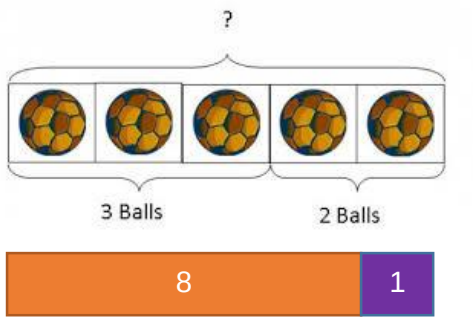
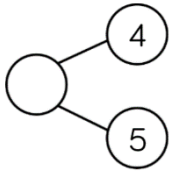
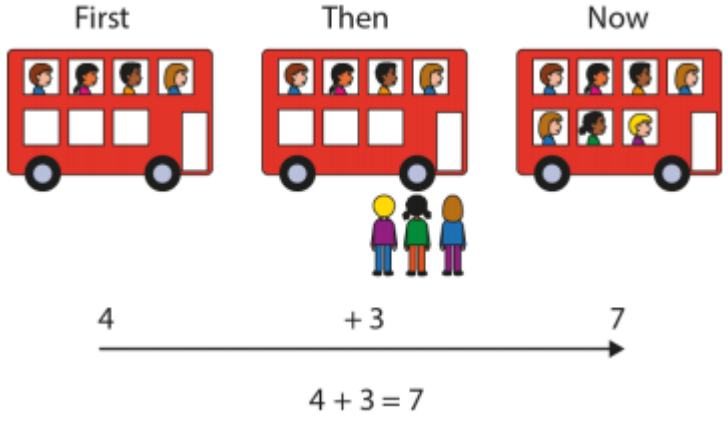
R A Butler Academies

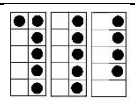
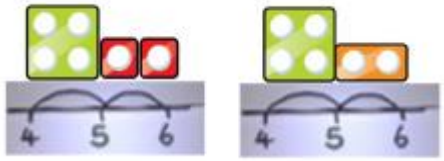
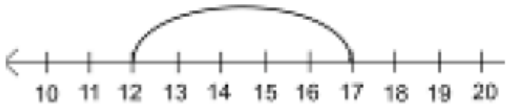
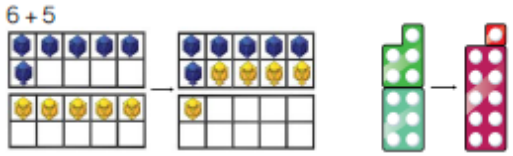
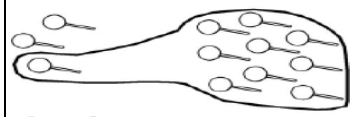
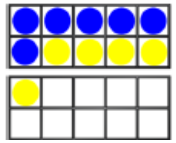
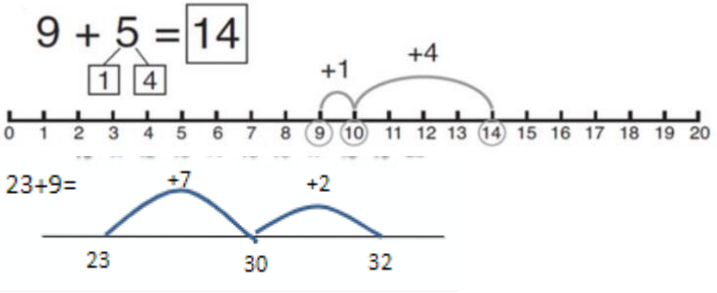
Maths Calculation Policy

Updated for 2021-22

Progression in Calculations from Year 1 to 6

Addition: sum, total, parts and wholes, plus, add, altogether, more, exchange, 'is equal to' 'is the same as'

Key skills and stem sentences	Concrete	Pictorial	Abstract
Year 1			
Combining two parts to make a whole: part- whole model _____ is a whole, _____ is a part, _____ is a part. There are _____ in total. First… Then… Now… e.g.	   Use cubes or other resources to add two numbers together as a group or in a bar.  	  Use pictures to add two numbers together as a group or in a bar.	4 + 3 = 7 10= 6 + 4  Use the part-part whole diagram as shown above to move into the abstract.
Starting at the bigger number and counting on The bigger number is _____. To find the total, I need to start at the biggest number, then count **on**.	 Start with the larger number on the bead string and then count on to the smaller number 1 by 1 to find the answer. Ten frames will also support this skill.		5 + 12 = 17 Place the larger number in your head and count on the smaller number to find your answer. ____ more than ____ is ____.

(delete words as chn become more familiar) First… Then… Now… E.g. **First** there were 4 children on the bus, **then** 3 children got on, **Now** there are 7 children on the bus. (this will help with the inverse relationship and missing number)	 	12 + 5 = 17  Start at the larger number on the number line and count on in ones or in one jump to find the answer.	The sum of ___ and ____ is____. The total of ___ and ____ is _____.
Making 10. I need ____ to make ten. I have ____ left over. 10 + ___ is _____.	6 + 5 = 11 Start with the bigger number and use the smaller number to make 10. 	 3 + 9 = Use pictures or a number line. Regroup or partition the smaller number to make 10. Draw the tens frame and counters  	7 + ___ = 10 10 + ____ = ____

Year 2

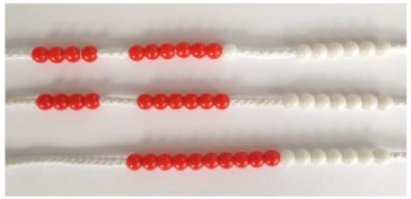
Adding three single digits

(delete words as chn become more familiar)

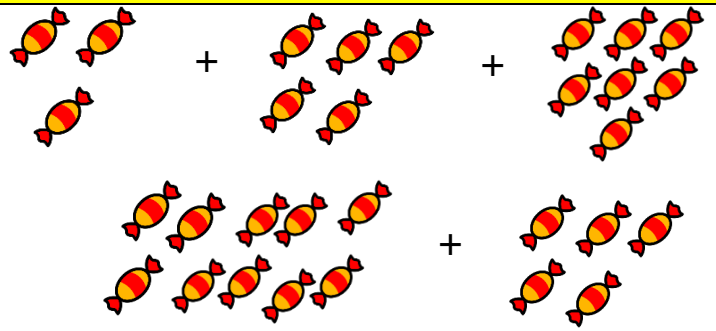
____ and ____ make ten. Ten add ____ is _____.

4 + 7 + 6= 17

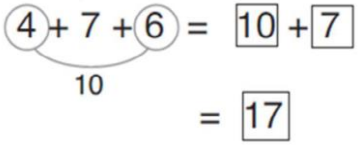
Use knowledge of number bonds to 10 and 20 to solve quickly.



Following on from making 10, make 10 with 2 of the digits (if possible) then add on the third digit, e.g. put 4 and 6 together to make 10. Add on 7.



Add together three groups of objects. Draw a picture to recombine the groups to make 10.

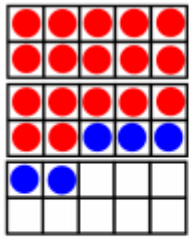


Combine the two numbers that make 10 and then add on the remainder.

Look for ways to make 10 and use this knowledge to solve,
e.g. 9 + 3 + 4 = 10 + 2 + 4 = 16

Add a two digit number and ones

____ can be partitioned into ____ and ____.
____ and ____ make (a multiple of ten).
(Multiple of ten and _____ (remainder) makes _____.
e.g. 17 + 5
5 can be partitioned into 3 and 2.
17 and 3 make 20.
20 and 2 make 22.



17 + 5 = 22

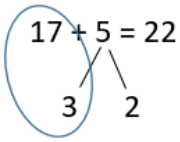
Use ten frame to make 'magic ten

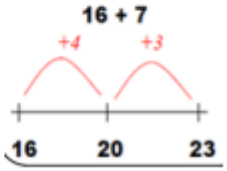
Children explore the pattern.

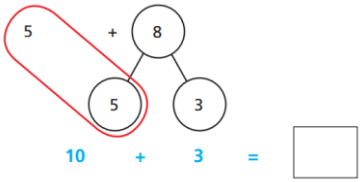
17 + 5 = 22

27 + 5 = 32

Use part part whole and number line to model.







17 + 5 = 22

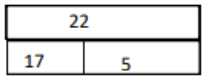
Explore related facts

17 + 5 = 22

5 + 17 = 22

22—17 = 5

22—5 = 17



Column method- no exchange

Year 2 to also begin to use exchanging when ready. See next skill for breakdown.

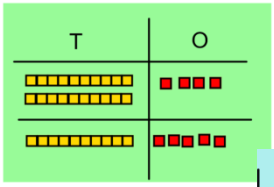
The___ is in the ones column, it represents ___ one(s).

The ___ is in the tens column, it represents ____ ten(s)

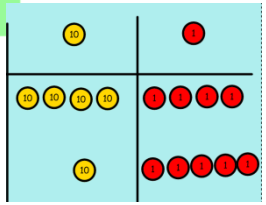
- ***'First I partition the ___ into ___ and ___, and the ___ into ___ and ___.'***
  (partitioning the two-digit addends)
- ***'___ plus ___ is equal to ___...'***
  (addition of the tens)
- ***'...___ plus ___ is equal to ___...'***
  (addition of the ones)
- ***'...and ___ plus ___ is equal to ___.'***
  (addition of the totals of tens and ones)
- ***'So ___ plus ___ is equal to ___.'***
  (summary of the overall calculation, including units where appropriate)

24 + 15=

Use base 10 blocks to represent the numbers. Add the ones together and then add the tens.

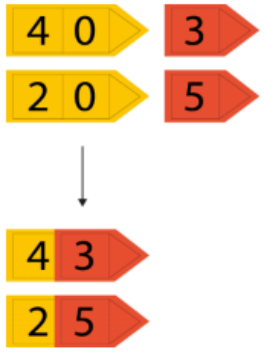


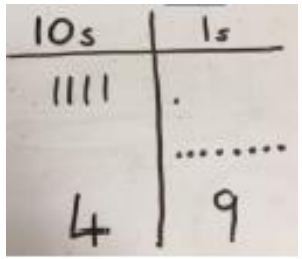
Place value counters will also aid this skill.



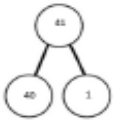
Draw the base 10 or counters to help them to solve additions. Sicks for tens and dots for ones.

A hundred square and number line can also support this skill.



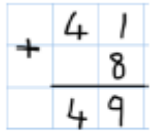


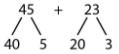
41 + 8



1 + 8 = 9

40 + 9 = 49





'First I partition the forty-five into forty and five, and the twenty-three into twenty and three.'

40 + 20 = 60

'Forty plus twenty is equal to sixty...'

5 + 3 = 8

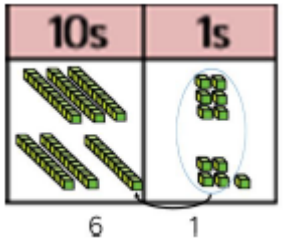
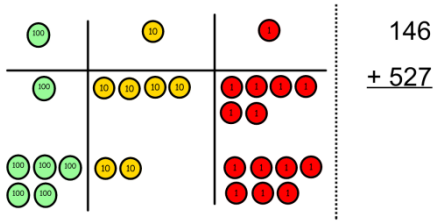
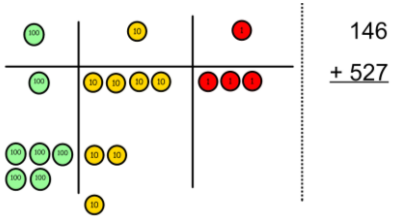
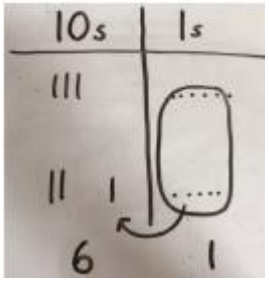
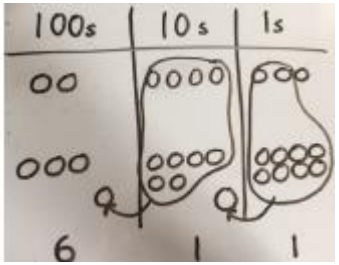
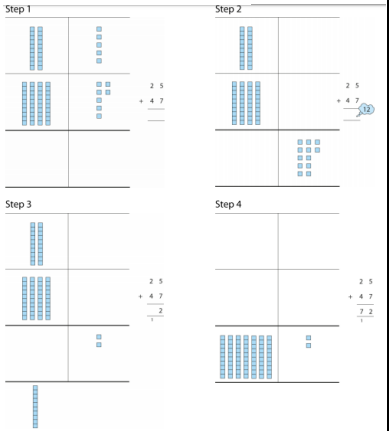
'...five plus three is equal to eight...'

60 + 8 = 68

'...and sixty plus eight is equal to sixty-eight.'

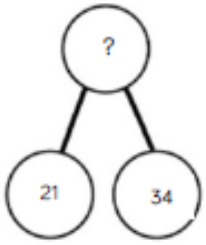
£45 + £23 = £68

'So forty-five pounds plus twenty-three pounds is equal to sixty-eight pounds.'

Year 3 onwards			
Column method with exchanging *Year 2 only to two 2 digit numbers* *Year 3 onwards will work with larger numbers* If the column sum is equal to ten or more, we must exchange. We need to exchange ten ones for one ten.	Make both numbers on a place value grid. 36+25  To progress to:  Add up the ones and exhange 10 ones for one 10.  Add up the rest of the columns, exchanging the 10 counters from one column for the next place value column until every column has been added.	Children can draw a pictoral representation of the base 10 or place value counters to further support their learning and understanding.   	Start by partitioning the numbers before moving on to clearly showing the exchange below the addition. 20 + 5 40 + 8 60 + 13 = 73  Ensure that the abstract column method is shown alongside the base 10 to explictly link where the exchanging is and why. 536 + 85 621 1 1

	As children move on to decimals, money and decimals place value counters can be used to support learning.		As the children move on, introduce decimals with the same number of decimal places. Money can also be used here. Year 5 and 6 include place holders 72.8 + 54.6 127.4 1 1 £ 2 3 . 5 9 + £ 7 . 5 5 £ 3 1 . 1 4 1 1 1 2 3 . 0 8 0 9 . 0 8 0 5 9 . 7 7 0 + 1 . 3 0 0 9 3 . 5 1 1 2 1 2

Conceptual variation; different ways to ask children to solve 21 + 34



?	
21	34

Word problems:
In year 3, there are 21 children and in year 4, there are 34 children.
How many children in total?

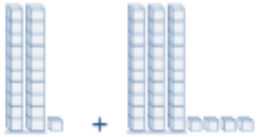
21 + 34 = 55. Prove it

21
+34
___

21 + 34 =

☐ = 21 + 34

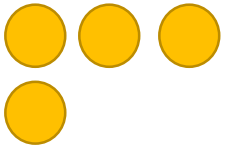
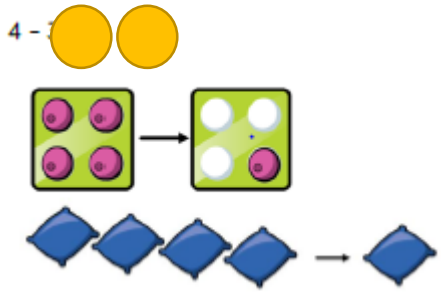
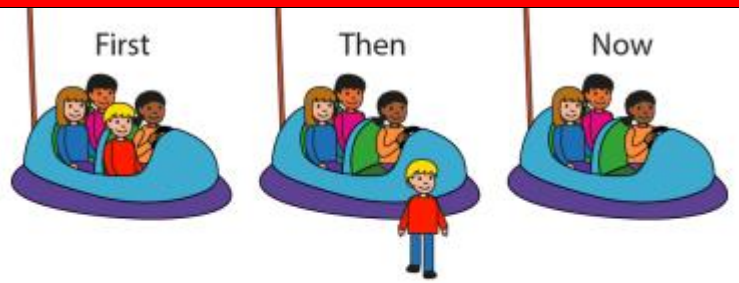
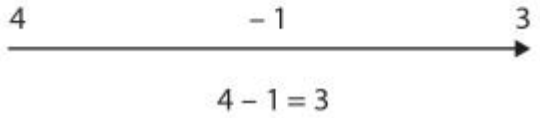
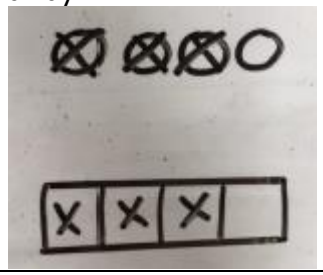
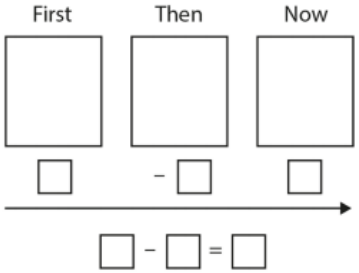
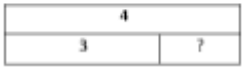
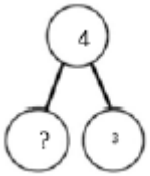
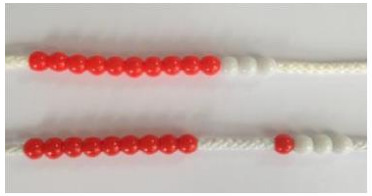
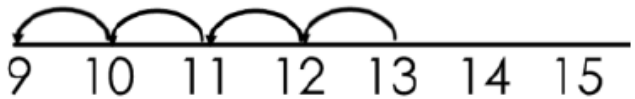
Calculate the sum of twenty-one and thirty-four.

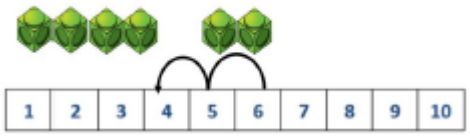
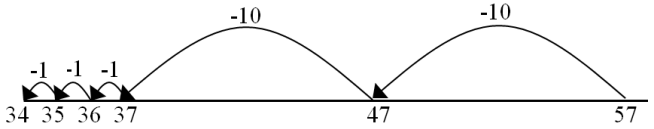
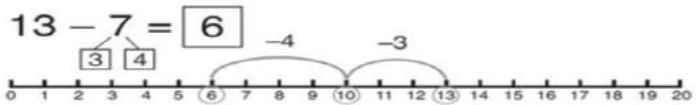


Missing digit problems:

10s	1s
10 10	1
10 10 10	?
?	5

Subtraction: take away, less than, the difference, subtract, minus, fewer, decrease, exchange

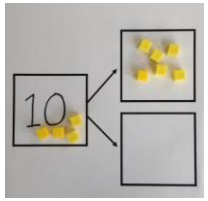
Key skills	Concrete	Pictorial	Abstract
Year 1 and 2			
Taking away ones First… Then… Now… e.g. **First** there were 4 children in the car, **then** 1 child got out, **Now** there are 3 children in the car.	Use physical objects, counters, cubes etc to show how objects can be taken away.  6 – 2 = 4 	  4 – 1 = 3 Cross out drawn objects to show what has been taken away. 	 4- 3 = = 4 - 3  
Counting back *All year groups should use this approach when using number lines*	Make the larger number in your subtraction. Move the beads along your bead string as you count backwards in ones. 	Count back on a number line or number track  Start at the bigger number and count back the smaller number showing the jumps on the number line.	Put 13 in your head, count back 4. What number are you at? Use your fingers to help. To progress to: Counting back in multiples in your head, visualising the number line.

to support subtraction The whole is ____. The part we are taking away is _____. Start on _____ and count back ____.	6 - 2 = 4  13 – 4 Use counters and move them away from the group as you take them away counting backwards as you go. 	 This can progress all the way to counting back using two 2 digit numbers.	
Make 10 To reach the next 10 I need to takeaway ____. _____ can be partitioned into ____ and ____. _____ takeaway ____ is 10. 10 takeaway ____ is _____.	14 – 5 =  Make 14 on the ten frame. Take away the four first to make 10 and then takeaway one more so you have taken away 5. You are left with the answer of 9.	 To reach the next 10 I need to takeaway 3. 7 can be partitioned into 3 and 4. 13 takeaway 3 is ten. 10 takeaway 4 is 6.	16 – 8= How many do we take off to reach the next 10? How many do we have left to take off?

Part / Whole Model

____ is the whole,
____ is a part and
_____ is a part.

First… Then… Now… (as above)

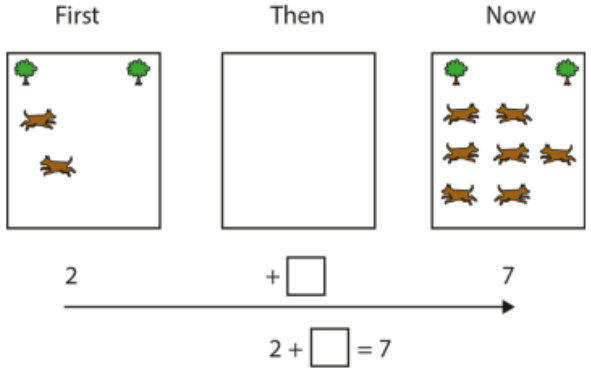


Link to addition- use the part whole model to help explain the inverse between addition and subtraction.

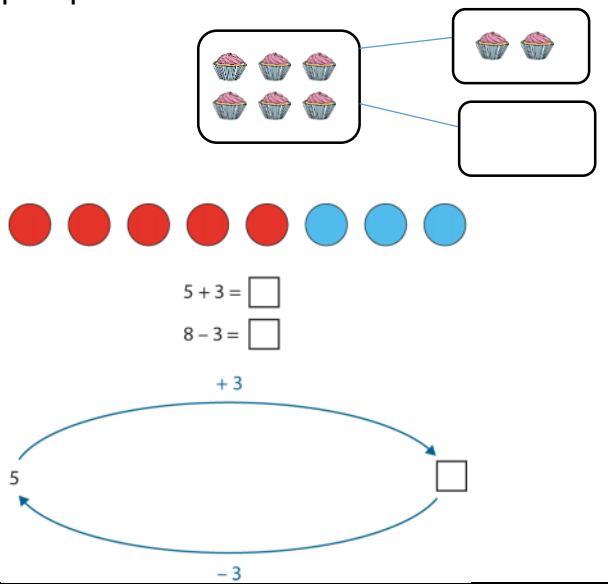
If 10 is the whole and 6 is one of the parts. What is the other part?

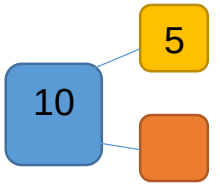
10 - 6 =

*'**First**, there were two dogs in the park.*
*We don't know what happened **then**.*
***Now**, there are seven dogs in the park.*
How many more dogs came into the park?'

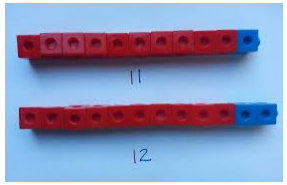
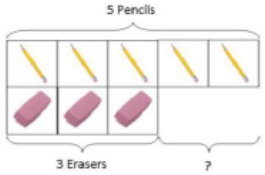
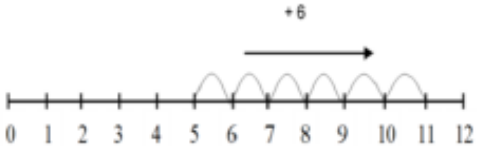
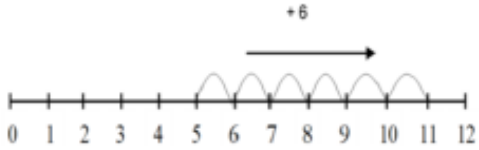
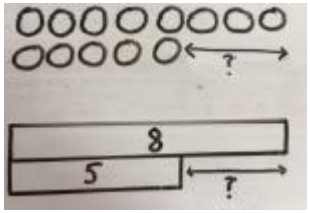
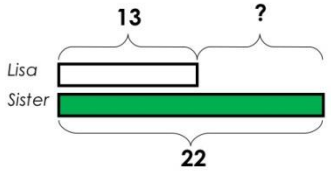


Use a pictorial representation of objects to show the part-part whole model.





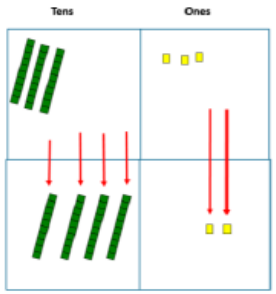
Move to using numbers within the part whole model.

Finding the difference The difference is the amount between amounts.	Compare amounts and objects to find the difference.  Use cubes to build towers or make bars to find the difference  Use basic bar models with items to find the difference  	Count on to find the difference.   Draw bars to find the difference between 2 numbers. **Comparison Bar Models** *Lisa is 13 years old. Her sister is 22 years old. Find the difference in age between them.*  	Children progress to the understanding that to find the difference you can simply take away. Hannah has 23 sandwiches, Helen has 15 sandwiches. Find the difference between the number of sandwiches. 23 – 15 = 8 Children to explore why 8-6 = 7-5 = 6-4

Column method without exchanging

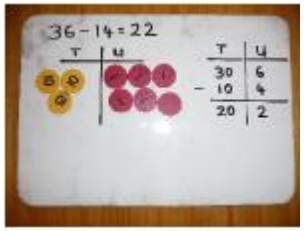
Year 2 (not year 1)

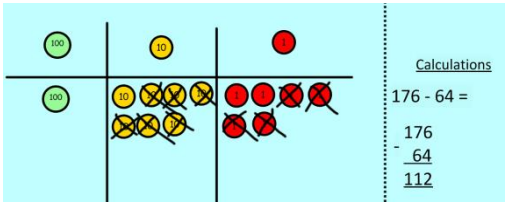
The bigger number is _____ so that goes at the top.
Take away the _____, then takeaway the _____.



Use Base 10 to make the bigger number then take the smaller number away.

Show how you partition numbers to subtract. Again make the larger number first.

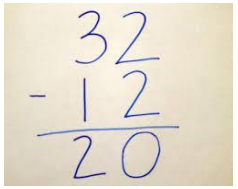




Draw the Base 10 or place value counters alongside the written calculation to help to show working.

47 - 24 = 23
40 + 7
- 20 + 4
20 + 3

This will lead to a clear



written column subtraction.

Year 3 onwards

Column method with exchanging

Year 2 only to two 2 digit numbers

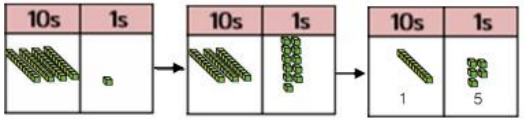
Year 3 to three digit numbers.

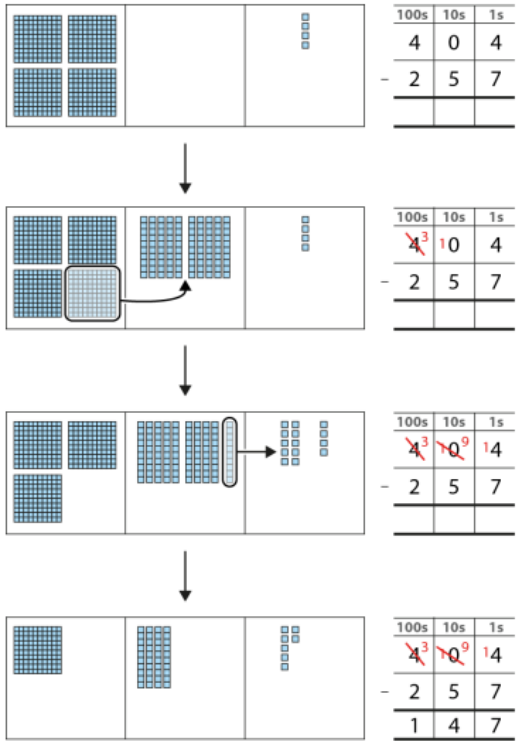
Year 4 onwards will work with larger numbers

The ones column represents ___ one (s) minus ____ ones (s). This is equal to ___ ones.
(repeat with tens, hundreds, etc)

We cannot have two digits in any place value column, so we

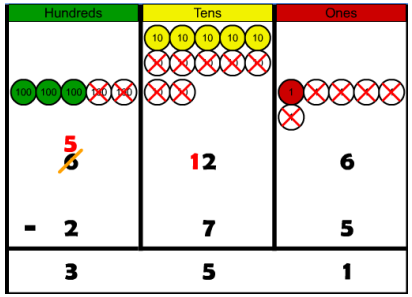
Use Base 10 to start with before moving on to place value counters. Start with one exchange before moving onto subtractions that exchange twice.

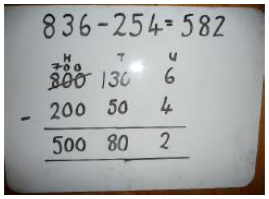




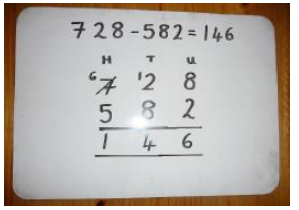
Make the larger number with the place value counters

Draw the base 10 and ensure the children can see what is happening when the column to the left has been exchanged.
Draw the counters onto a place value grid and show what you have taken away by crossing the counters out as well as clearly showing the exchanges you make.



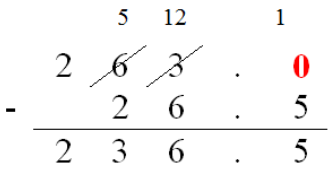


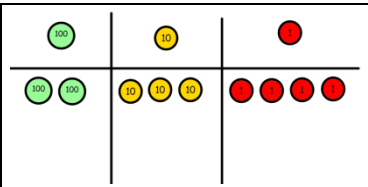
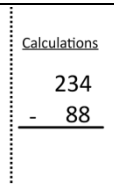
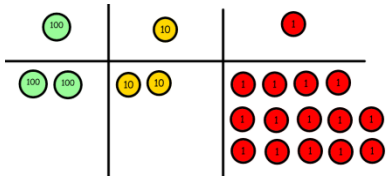
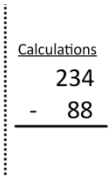
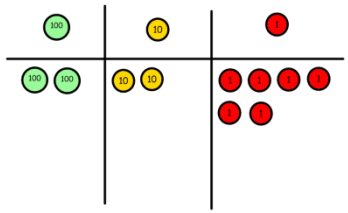
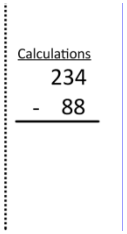
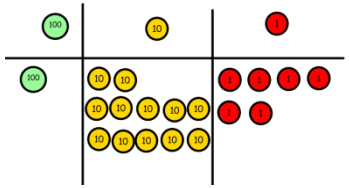
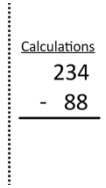
Children can start their formal written method by partitioning the number into clear place value columns.

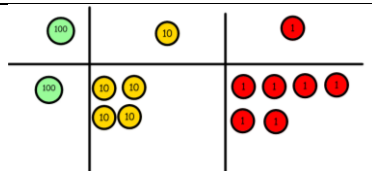


Moving forward the children use a more compact method.

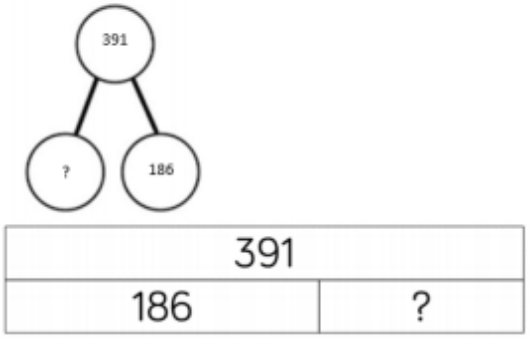
This will lead to an understanding of subtracting any number including decimals.



need to exchange one ten for ten ones.	  Calculations 234 - 88 Start with the ones, can I take away 8 from 4 easily? I need to exchange one of my tens for ten ones.   Calculations 234 - 88   Calculations 234 - 88 Now I can subtract my ones. Now look at the tens, can I take away 8 tens easily? I need to exchange one   Calculations 234 - 88 hundred for ten tens. Now I can take away eight tens and complete my subtraction		

	 Show children how the concrete method links to the written method alongside your working. Cross out the numbers when exchanging and show where we write our new amount.		

Conceptual variation; different ways to ask children to solve 391 - 186



Raj spent £391, Timmy spent £186.
How much more did Raj spend?

Calculate the difference between 391 and 186.

□ = 391 – 186

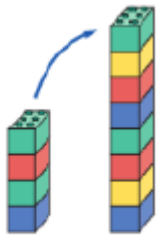
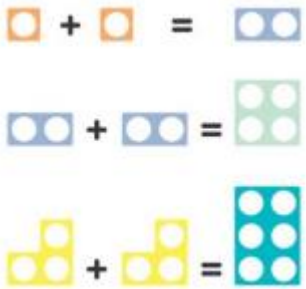
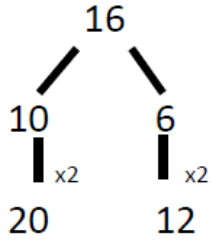
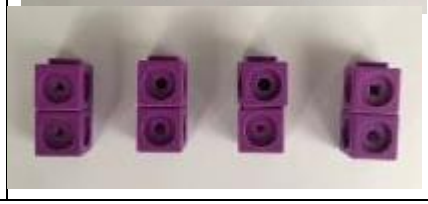
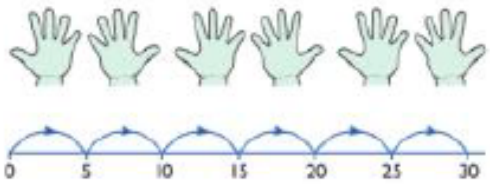
391
-186
———

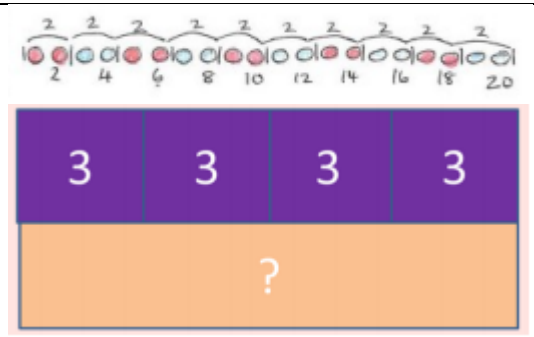
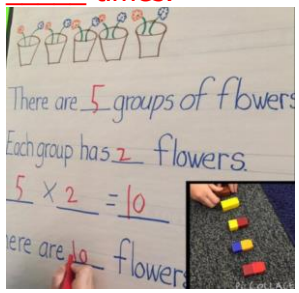
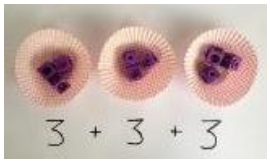
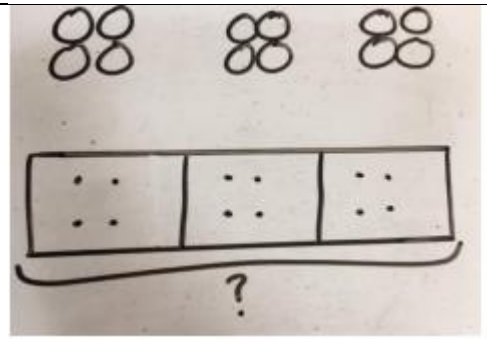
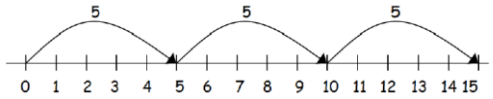
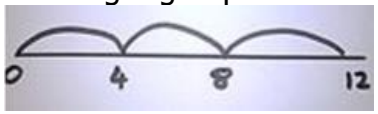
What is 186 less than 391?

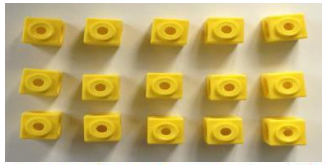
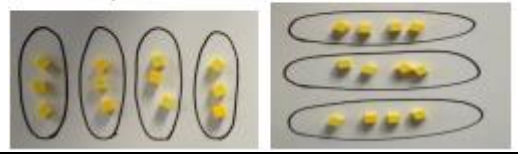
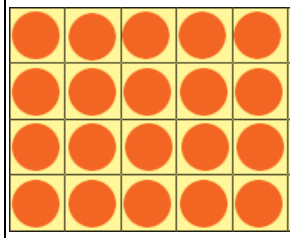
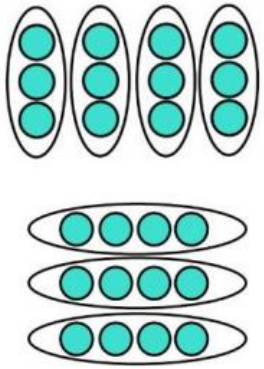
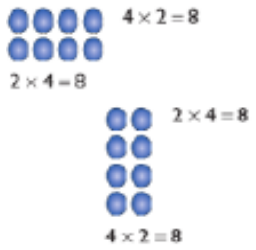
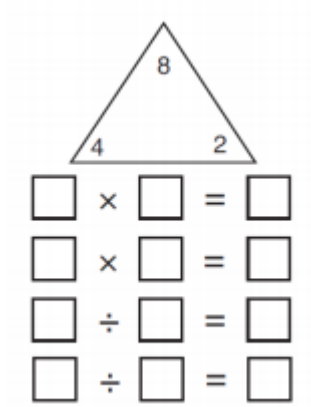
Missing digit calculations

3 9 □
- □ □ 6
———
□ 0 5

Multiplication double, times, multiplied by, the product of, groups of, lots of, equal groups, exchange

Key Skills	Concrete	Pictorial	Abstract
Year 1			
Doubling Doubling is an amount twice.	Use practical activities to show how to double a number.  double 4 is 8 4 × 2 = 8 	Draw pictures to show how to double a number. Double 4 is 8 	 Partition a number and then double each part before recombining it back together.
Counting in multiples We are counting in multiples of ____ so we count every ____.	 	 Use a number line or pictures to continue support in counting in multiples.	Count in multiples of a number aloud. Skip counting. Write sequences with multiples of numbers. 2, 4, 6, 8, 10

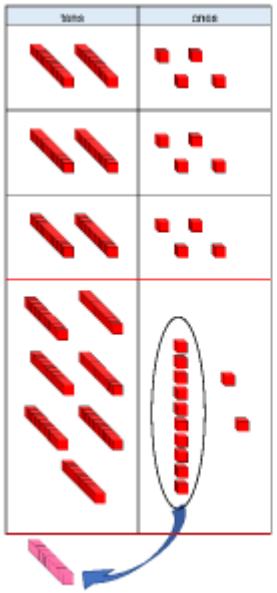
	Count in multiples supported by concrete objects in equal groups.		5, 10, 15, 20, 25 , 30
Understanding that multiplication is equal groups	Use physical resources	 There are ☐ equal groups of ☐	
Repeated addition There are ____ in each group. There are ____ groups. We have to add ____ _____ times. 	   Use different objects to add equal groups.  Cuisenaire rods can be used too.	  5 + 5 + 5 = 15	Write addition sentences to describe objects and pictures. 2 x 5  Abstract number line showing 3 groups of 4 

<table>
<tr><th colspan="4">Year 2</th></tr>
<tr>
<td>Arrays- showing commutative multiplication
____ lots of ____ is the same as ____ lots of ____.</td>
<td> 
Create arrays using counters/ cubes to show multiplication sentences.
 
Pupils should understand that an array can represent different equations and that, as multiplication is commutative, the order of the multiplication does not affect the answer.
  </td>
<td>Draw arrays in different rotations to find commutative multiplication sentences.
Link arrays to areas of rectangles.
 
 
 
</td>
<td>Use an array to write multiplication sentences and reinforce repeated addition.
 
5 + 5 + 5 = 15
3 + 3 + 3 + 3 + 3 = 15
5 x 3 = 15
3 x 5 = 15</td>
</tr>
<tr>
<td>Using the inverse (to be taught alongside division)
____ lots of ____ is ____ so ____ divided by ____ is ____.</td>
<td>See above</td>
<td>See above</td>
<td> 
</td>
</tr>
</table>

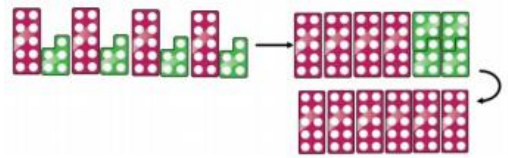
Year 3 and Year 4

Partition to multiply

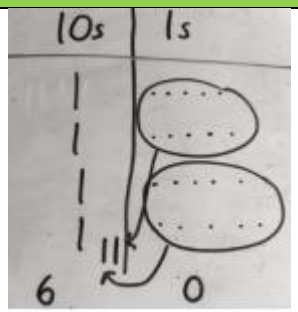
_____ can be partitioned into _____ and _____.
_____ lots of ___ ones is _____.
_____ lots of _____ tens is _____.
_____ ones add _____ tens is _____.



	tens	ones	
	2	4	
x		3	
	7	2	
	1		



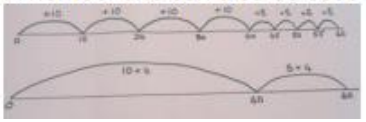
Show using base 10 or numicon (first without exchanging)



4 x 15
10 5

10 x 4 = 40
5 x 4 = 20
40 + 20 = 60

A number line can also be used

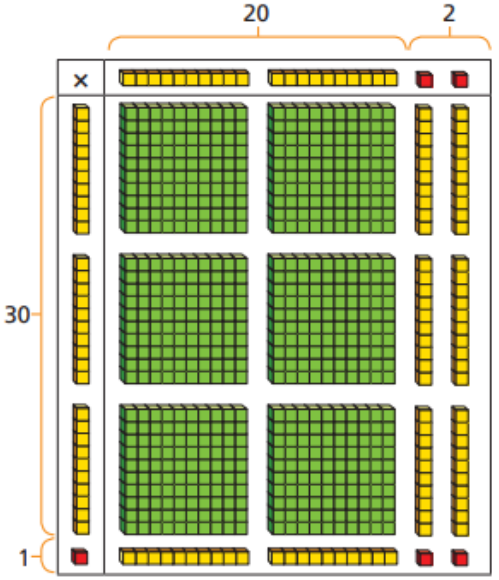
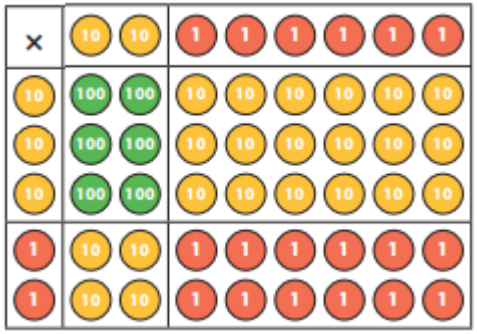


Children to be encouraged to show the steps they have taken.

```
  327
x   4
-----
  28
  80
1200
-----
1308
```

```
  3 2 7
x     4
-------
1 3 0 8
  1 2
```

This may lead to a compact method.

Area models of multiplication	Build area model up from Diennes and PV counters	Area model drawn using PV counters and Diennes  	Written grid method × | 20 | 6 30 | 600 | 180 2 | 40 | 12

<table>
<tr><th colspan="4">Year 5 and Year 6</th></tr>
<tr>
<td>

Column multiplication

We always need to start at the ones.

____ ones times ____ ones is ___ ones.
____ ones times ____ tens is ____ tens.
Because we are multiplying by ten, we need to add in a zero as a place value holder.

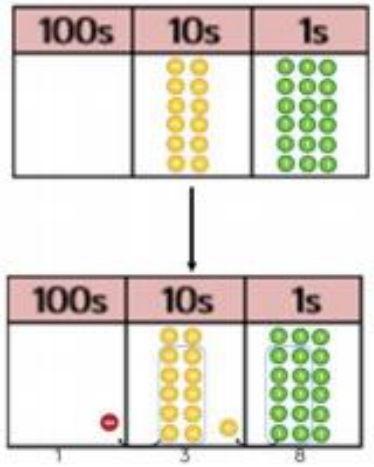
We cannot have more than one digit in any place value column, so we need to exchange ___ ones as ____ ten

(and etc as needed)

</td>
<td>

Children to be supported by base 10 with smaller numbers before representing numbers using base 10.

6 x 23



It is important at this stage that they always multiply the ones first and note down their answer followed by the tens which they note below.

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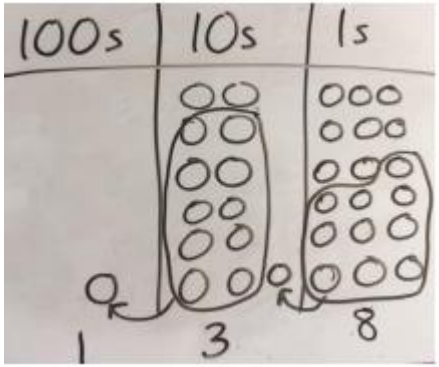
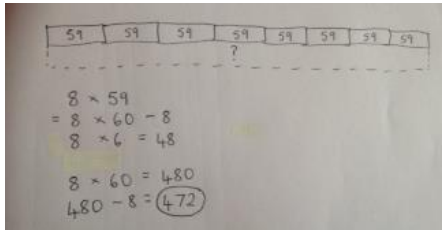
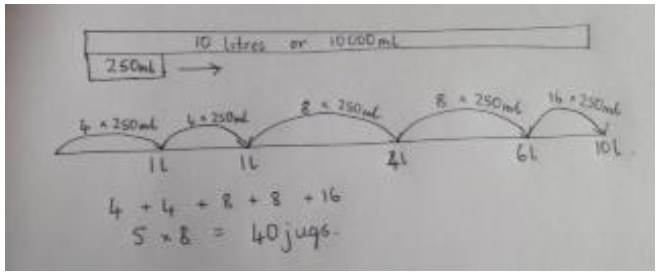
Bar modelling and number lines can support learners when solving problems with multiplication alongside the formal written methods.







</td>
<td>

Start with long multiplication, reminding the children about lining up their numbers clearly in columns. Use an expanded method to start with.

If it helps, children can write out what they are solving next to their answer.

```
  32
x 24
   8   (4 x 2)
 120   (4 x 30)
  40   (20 x 2)
 600   (20 x 30)
 768
```

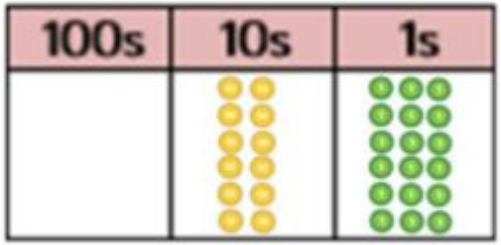
```
      7  4
   x  6  3
   ---------
      1  2
   2  1  0
   2  4  0
+  4  2  0  0
   ---------
   4  6  6  2
```

This moves to the more compact method.

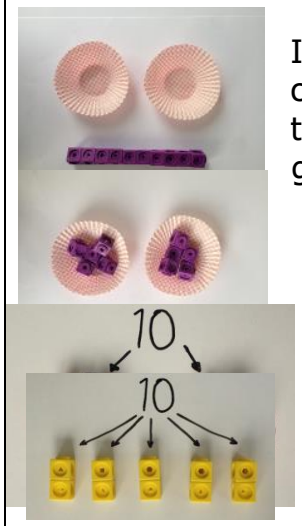
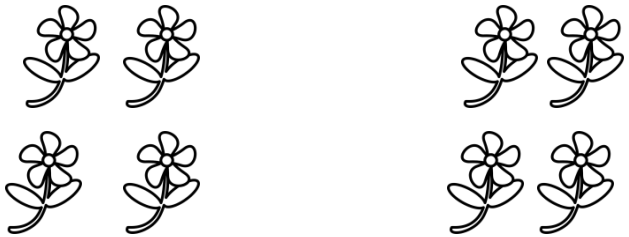
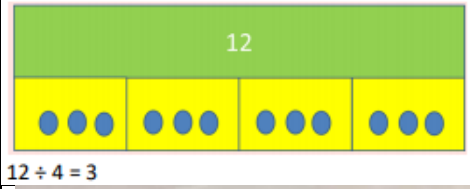
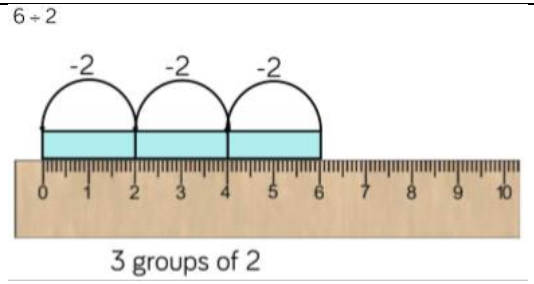
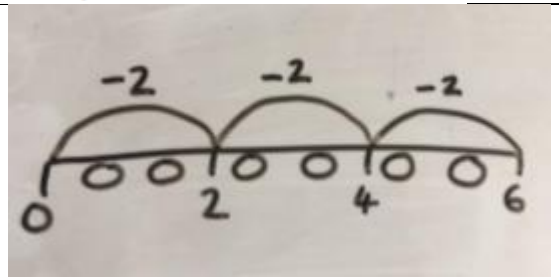
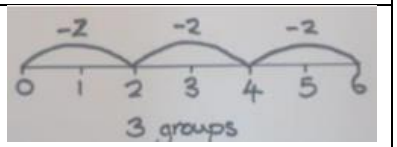
</td>
</tr>
</table>

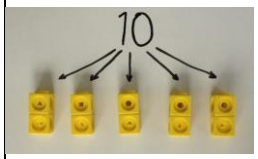
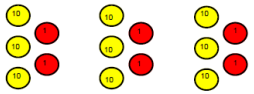
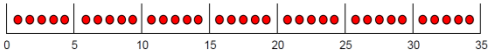
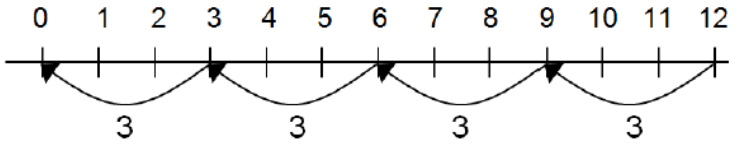
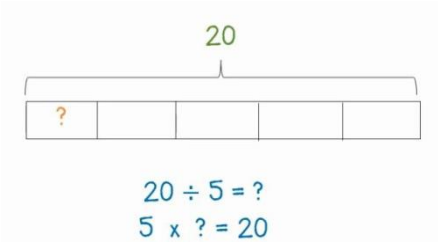
			1 2 4 × 2 6 7 4 4 2 4 8 0 3 2 2 4 Answer: 3224 Note where the exchanging is placed within the calculation

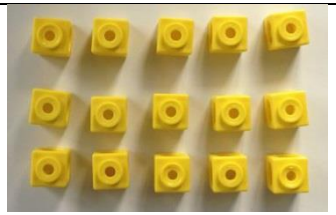
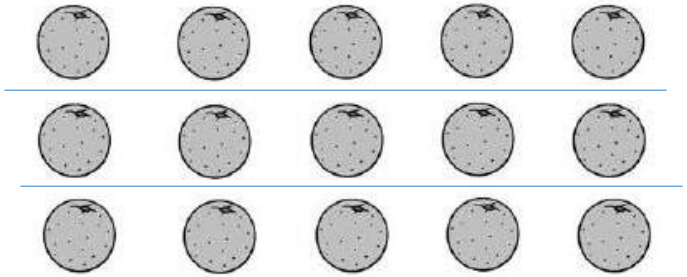
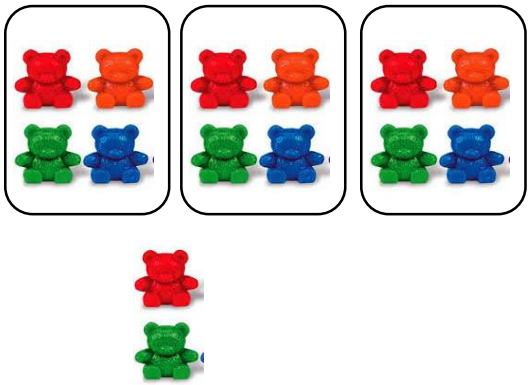
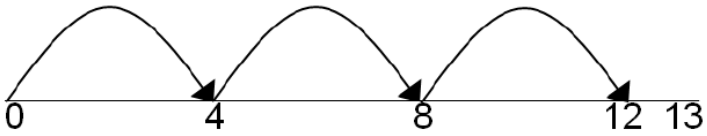
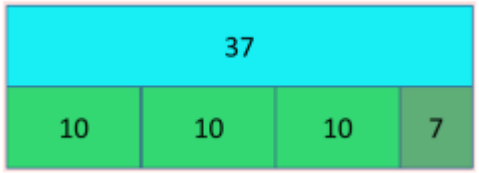
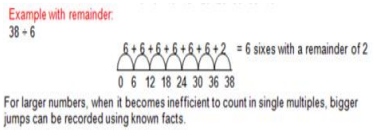
Conceptual variation; different ways to ask children to solve 6 × 23

	Mai had to swim 23 lengths, 6 times a week. How many lengths did she swim in one week? With the counters, prove that 6 x 23 = 138	Find the product of 6 and 23 6 × 23 = ☐ = 6 × 23 6 × 23 23 × 6	What is the calculation? What is the product? 

Division share, group, divide, divided by, half, divisor, dividend, quotient, remainder, exchange

Key skills	Concrete	Pictorial	Abstract
Year 1			
Sharing objects into groups ____ shared equally between ____ is _____	 I have 10 cubes, can you share them equally in 2 groups?	Children use pictures or shapes to share quantities.  8 ÷ 2 = 4  12 ÷ 4 = 3	Share 9 buns between three people. 9 ÷ 3 = 3
Repeated subtraction We need to divide ____ into groups of ____, so we need to take away ____ each time. We have ____ groups of ____.			

Year 2			
Division as grouping ____ split into ___ groups means there would be ____ in each group.	 Divide quantities into equal groups. Use cubes, counters, objects or place value counters to aid understanding. 96 ÷ 3 = 32     24 divided into groups of 6 = 4	Use a number line to show jumps in groups. The number of jumps equals the number of groups.  Think of the bar as a whole. Split it into the number of groups you are dividing by and work out how many would be within each group.  	28 ÷ 7 = 4 Divide 28 into 7 groups. How many are in each group?

Division within arrays	 Link division to multiplication by creating an array and thinking about the number sentences that can be created. Eg 15 ÷ 3 = 5 5 x 3 = 15 15 ÷ 5 = 3 3 x 5 = 15	 Draw an array and use lines to split the array into groups to make multiplication and division sentences.	Find the inverse of multiplication and division sentences by creating four linking number sentences. 7 x 4 = 28 4 x 7 = 28 28 ÷ 7 = 4 28 ÷ 4 = 7
Division with a remainder A remainder is what is left over after splitting into equal groups. ____ divided by ___ gives ____ equal groups, with _____ remaining.	14 ÷ 3 = Divide objects between groups and see how much is left over  Use of lollipop sticks to form wholes- squares are made because we are dividing by 4.  There are 3 whole squares, with 1 left over. Cuisenaire over a ruler can also be used.	Jump forward in equal jumps on a number line then see how many more you need to jump to find a remainder.  Draw dots and group them to divide an amount and clearly show a remainder.   	Complete written divisions and show the remainder using r. 29 ÷ 8 = 3 r 5  

<table>
<tr><th colspan="4">Year 3 onwards</th></tr>
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<td>

Short division (no exchange)

In division, we start from the largest place value column. We start from the right.

___ is __ tens and ___ ones. ____ tens divided by ____ is ____. _____ ones divided by _____ is _____. ____ add ____ is _____.

e.g. 36 is 3 tens and 6 ones. 3 tens divided by 3 is one ten. 6 ones divided by 3 is 2 ones. One ten add 2 ones is 12.

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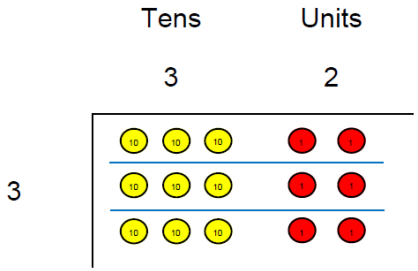
Should first be shown using base 10 and shared into groups, to understand the place value.

Use place value counters to divide using the bus stop method alongside



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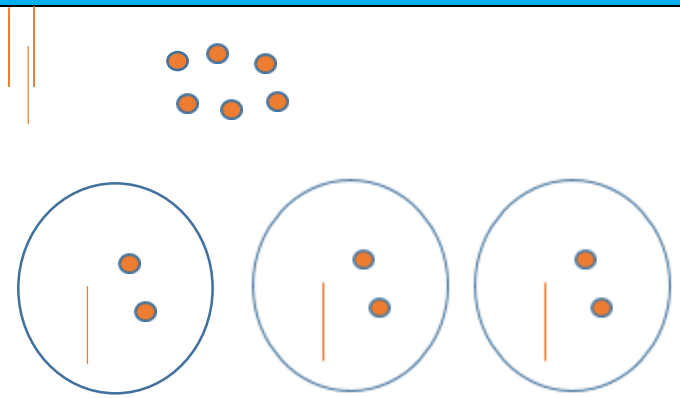

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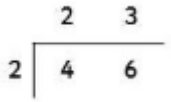
36 ÷ 3 = 12



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Short division (with exchange)

e.g. 42 is 4 tens and 2 ones. We can share 3 tens equally with one ten in each group but there is one ten left over. We need to exchange this ten for ten ones. Now we have twelves ones. 12 shared between 3 is 4

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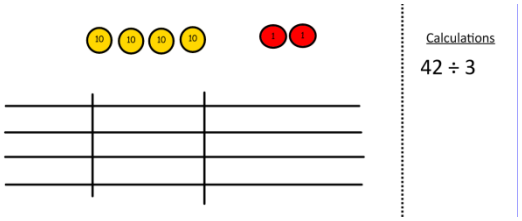

42 ÷ 3=

Start with the biggest place value, we are sharing 40 into three groups. We can put 1 ten in each group and we have 1 ten left over.

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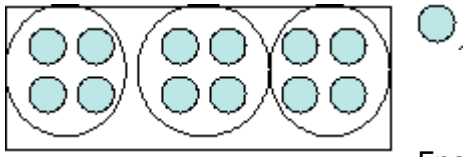
Students can continue to use drawn diagrams with dots or circles to help them divide numbers into equal groups.



Encourage them to move towards counting in multiples to divide more efficiently.

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Start with division without remainders

42 ÷ 3
42 = 30 + 12
30 ÷ 3 = 10
12 ÷ 3 = 4
10 + 4 = 14

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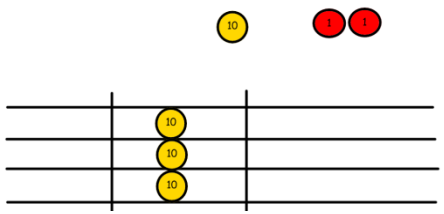
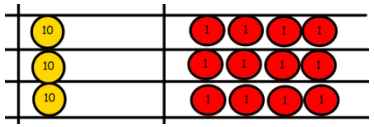
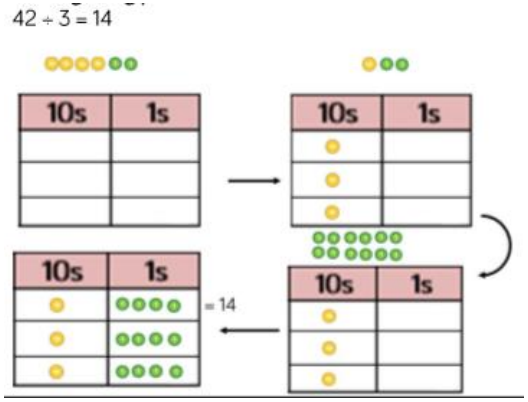
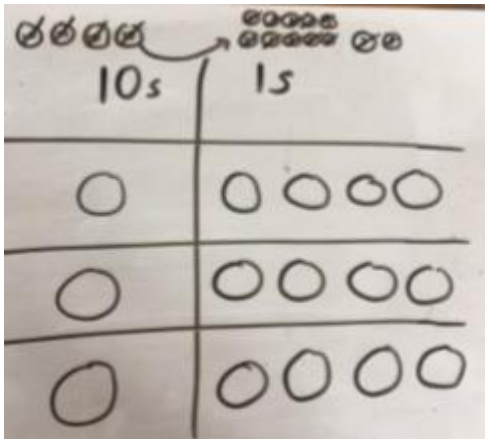
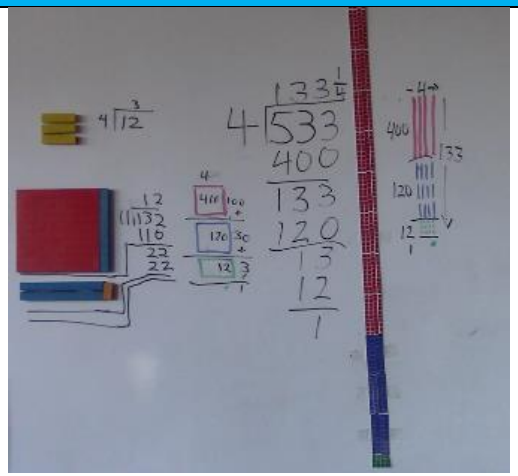
</table>

ones. In each group there is one ten and 4 ones. 10 add 4 is 14.	 We exchange this ten for ten ones and then share the ones equally among the groups.  We look how much is in 1 group so the answer is 14. 		$$\begin{array}{r} 2\ 1\ 8 \\ 4\overline{)\,8\ 7\ 2} \\ \quad\ 3 \end{array}$$ Move onto divisions with a remainder. $$\begin{array}{r} 8\ 6\ \text{r}\ 2 \\ 5\overline{)\,4\ 3\ 2} \\ \quad\ 3 \end{array}$$ Finally move into decimal places to divide the total accurately. $$\begin{array}{r} 1\ 4\ .\ 6 \\ 3\ 5\overline{)\,5\ 1\ 1\ .\ 0} \\ \quad\ 16\quad\ 21 \end{array}$$

Year 6

Long division

Systematically go through every small step using a deliberate structure that is easy to understand which numbers are being referred to e.g. 7 hundreds, not just 'the 7'.



Use base 10 and place value counters to secure understanding

Use partitioning to support understanding of division, e.g. 364 ÷ 14
Look for numbers which are clear multiples of the divisor, e.g 364 = 140 + 140 + 70 + 14

Divide each multiple by the divisor
140 ÷ 14 = 10
140 ÷ 14 = 10
70 ÷ 14 = 5
14 ÷ 14 = 1

Combine the answers together to find the total.

364 ÷ 14 = 10 + 10 + 5 + 1 = 26

Write out the divisors times table and use these facts to help.

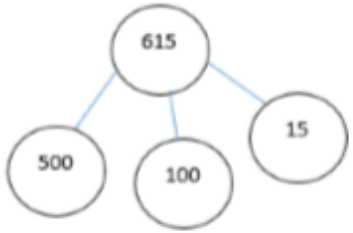
$$\begin{array}{r} 291 \\ 45\overline{)13095} \\ \underline{90} \\ 409 \\ \underline{405} \\ 45 \\ \underline{45} \end{array}$$

1 x 45 = 45
2 x 45 = 90
3 x 45 = 135
4 x 45 = 180
5 x 45 = 225
6 x 45 = 270
7 x 45 = 315
8 x 45= 360
9 x 45 = 405
10 x 45 =450

Watch this simple video for a clear explanation

Conceptual variation; different ways to ask children to solve 615 ÷ 5

Using the part whole model below, how can you divide 615 by 5 without using short division?



I have £615 and share it equally between 5 bank accounts. How much will be in each account?

615 pupils need to be put into 5 groups. How many will be in each group?

$5\overline{)615}$

615 ÷ 5 =

☐ = 615 ÷ 5

What is the calculation?
What is the answer?