



Bledington Primary School
Calculation Policy Reviewed February 2022

At Bledington Primary School we use a range of tools to inform our planning and teaching of mathematics across the school. This includes the 'White Rose Hub' format of:

- **fluency**
- **reasoning**
- **problem-solving**

To develop our thinking and reasoning we are using resources such as National Centre for Excellence in the Teaching of Mathematics (NCETM) documents, Nrich problems and STOPS Problem Solving.

The aim is that when children leave Bledington they:

- Have a secure knowledge of number facts and a good understanding of the four calculation operations (addition, subtraction, multiplication and division)
- Make use of jottings, diagrams and informal notes to help record steps and part answers when using mental methods that generate more information than can be kept in their heads
- Have an efficient, reliable, written method of calculation for each operation that they are able to apply with confidence when they are unable to perform a calculation mentally

Mathematics Mastery

At the centre of a mastery approach to the teaching of mathematics is the belief that all children have the potential to succeed. They should have access to the same curriculum content and, rather than being extended with new learning, they should deepen their conceptual understanding by tackling challenging and varied problems. Similarly, with calculation strategies, children must not simply rote learn procedures but demonstrate their understanding of these procedures through the use of concrete materials and pictorial representations, progressing to being able to explain their reasoning and 'proving it' by giving examples. In addition to the explicit teaching reasoning and problem solving skills pupils should have access to opportunities for high quality mathematical discussion for example through paired working in low threshold-high ceiling tasks that allow pupils of all abilities to access a challenge.

Mathematical language

The 2014 National Curriculum articulates the importance of children using the correct mathematical language as a central part of their learning (reasoning). In certain year groups, the non-statutory guidance highlights the requirement for children to extend their language around certain concepts. It is therefore essential that teaching using the strategies outlined in this policy is accompanied by the use of appropriate and precise mathematical vocabulary. New vocabulary should be introduced in a suitable context (for example, with relevant, real objects, apparatus, pictures of diagrams) and explained carefully. High expectations of the mathematical language used are essential, with teachers only accepting what is correct

'The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof.'

- 2014 Mathematics Programme of Study

Using a Concrete-Pictorial-Abstract Approach:

Children develop an understanding of a mathematical concept through the three steps of: concrete, pictorial and abstract approach.

The progression through each step is not chronological (age/year group related) but rather related to the introduction of new concepts. For example, a child in Year 3 may use concrete manipulatives to secure understanding of exchanging in column addition. Children will move to the next step when they are ready, there is no time limit to spend at each stage. Likewise, some children will move from concrete to abstract quickly on certain topics. Children should be able to move between the concrete and the abstract to develop and demonstrate their understanding of a concept.

Concrete Representation:

This is the first step in a child's learning. The child is introduced to an idea or skill by acting it out with real objects. This is a 'hands on' component using real objects and it is the foundation for conceptual understanding.

Pictorial Representation:

Once the child has sufficiently understood the 'hands on' experience, they can be progressed onto relating them to pictorial

representations, such as a diagram or a picture of the problem.

Abstract Representation:

This is the third step in a child's learning. The child should now be capable of representing problems by using mathematical notation, for example: $12 \div 2 = 6$

Questioning and context

Children will be questioned on their understanding of a particular concept by being asked to explain *how* they achieved an answer, rather than simply stating the answers itself. This ability to reason not only shows an understanding but can lead to discussion on the most efficient way to reach an answer.

Contextualising a concept can help children to grasp it. A lesson about addition and subtraction could start with this contextual story: "There are 11 people on a bus. At the next stop 4 people get on. At the next stop 6 people get off. How many are now on the bus?" This helps children develop their understanding of the concepts of addition and subtraction. But during the lesson the teacher should keep returning to the story. For example, if the children are thinking about this calculation $14 - 8$ then the teacher should ask the children: "What does the 14 mean? What does the 8 mean?", expecting that children will answer: "There were 14 people on the bus, and 8 is the number who got off."

Pupil Progression

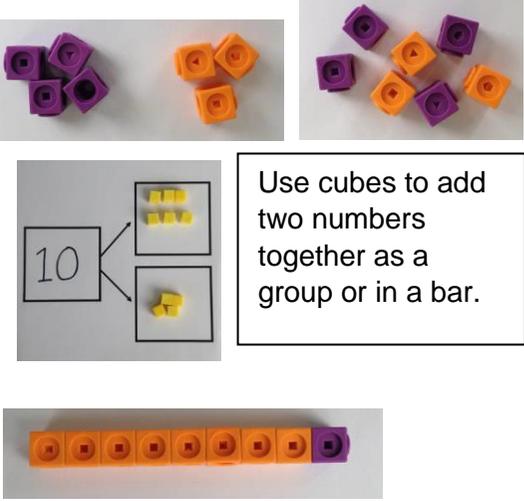
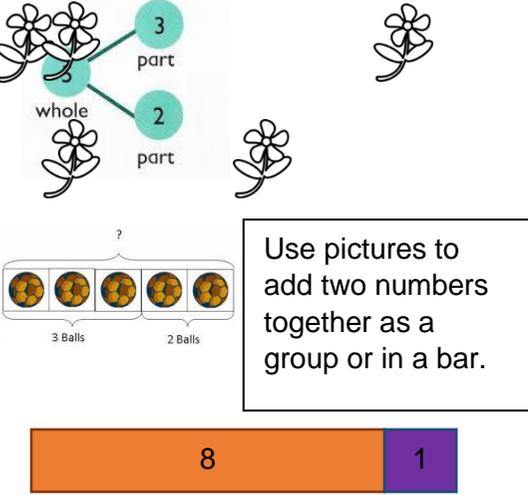
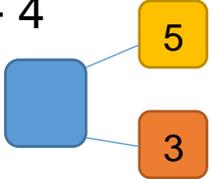
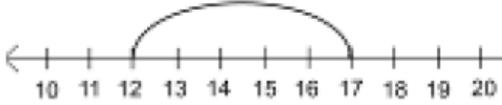
Our [Maths Progression Grid](#) outlines what pupils working at the expected standard in each year group should be able to achieve in each area of the maths curriculum. Pupils, wherever possible, should be supported to access the curriculum for their year group. Pupils working at greater depth in a topic should be challenged to develop their reasoning in this topic area.

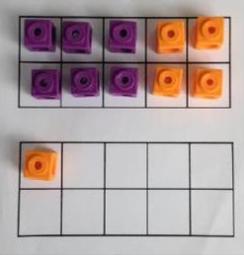
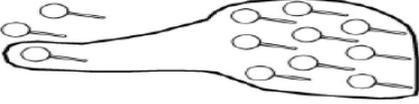
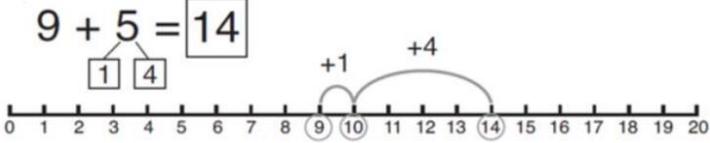
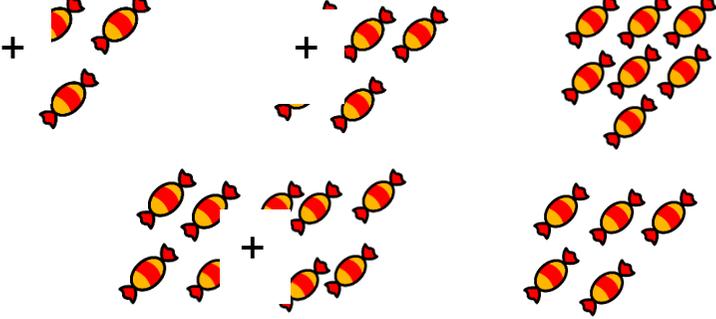
As an example, Place Value progression:

Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none">• recognise the place value of each digit in a two-digit number• compare and order numbers from 0 up to 100; use <, > and = signs	<ul style="list-style-type: none">• recognise the place value of each digit in a three-digit number• compare and order numbers up to 1000	<ul style="list-style-type: none">• recognise the place value of each digit in a four-digit number• order and compare numbers beyond 1000• round any number to the nearest 10, 100 or 1000	<ul style="list-style-type: none">• read, write, order and compare numbers up to 1 000 000 and determine the value of each digit• round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	<ul style="list-style-type: none">• read, write, order and compare numbers up to 10 000 000 and determine the value of each digit• round any whole number to a required degree of accuracy

Progression in Calculations

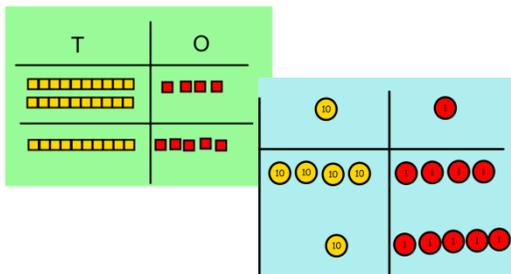
Addition

Objective and Strategies	Concrete	Pictorial	Abstract
<p>Combining two parts to make a whole: part-whole model</p>	 <p>Use cubes to add two numbers together as a group or in a bar.</p>	 <p>Use pictures to add two numbers together as a group or in a bar.</p>	<p>$4 + 3 = 7$</p> <p>$10 = 6 + 4$</p>  <p>Use the part-part whole diagram as shown above to move into the abstract</p>
<p>Starting at the bigger number and counting on</p>	 <p>Start with the larger number on the bead string and then count on to the smaller number 1 by 1 to find the answer.</p>	<p>$12 + 5 = 17$</p>  <p>Start at the larger number on the number line and count on in ones or in one jump to find the answer.</p>	<p>$5 + 12 = 17$</p> <p>Place the larger number in your head and count on the</p>

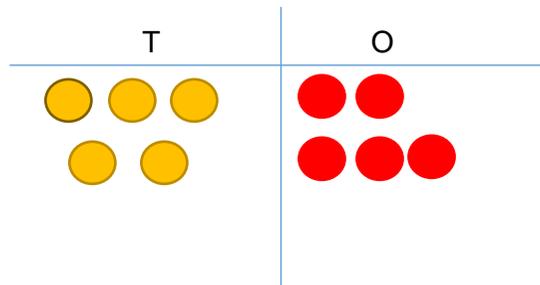
			<p>smaller number to find your answer.</p>
<p>Regrouping to make 10.</p>	 <p>$6 + 5 = 11$</p>  <p>Start with the bigger number and use the smaller number to make 10.</p>	 <p>$3 + 9 =$</p>  <p>$9 + 5 = 14$</p> <p>Use pictures or a number line. Regroup or partition the smaller number to make 10.</p>	<p>$7 + 4 = 11$</p> <p>If I am at seven, how many more do I need to make 10. How many more do I add on now?</p>
<p>Adding three single digits</p>	<p>$4 + 7 + 6 = 17$ Put 4 and 6 together to make 10. Add on 7.</p>  <p>Following on from making 10, make 10 with 2 of the digits (if possible) then add on the third digit.</p>	 <p>Add together three groups of objects. Draw a picture to recombine the groups to make 10.</p>	<p>$4 + 7 + 6 = 10 + 7$ $= 17$</p> <p>Combine the two numbers that make 10 and then add on the remainder.</p>

Column method- no regrouping

$24 + 15 =$
Add together the ones first then add the tens. Use the Base 10 blocks first before moving onto place value counters.



After practically using the base 10 blocks and place value counters, children can draw the counters to help them to solve additions.



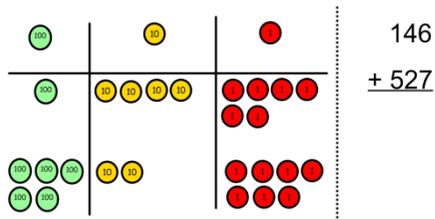
Calculations

$$21 + 42 =$$

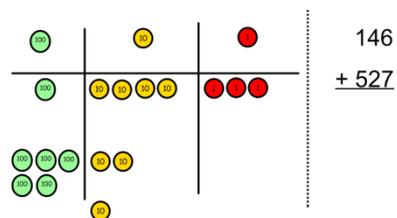
$$\begin{array}{r} 21 \\ + 42 \\ \hline \end{array}$$

Column method- regrouping

Make both numbers on a place value grid.

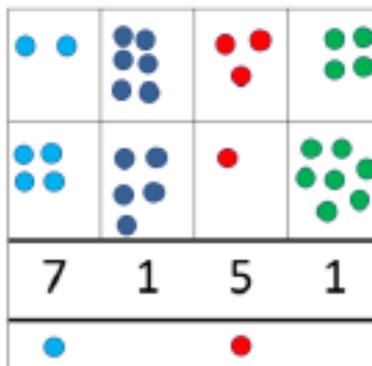


Add up the units and exchange 10 ones for one 10.



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 pictorial representation of the columns and place value counters to further support their learning and understanding.



Start by partitioning the numbers before moving on to clearly show the exchange below the addition.

$$\begin{array}{r} 20 + 5 \\ 40 + 8 \\ 60 + 13 = 73 \end{array}$$

$$\begin{array}{r} 536 \\ + 85 \\ \hline 621 \\ 11 \end{array}$$

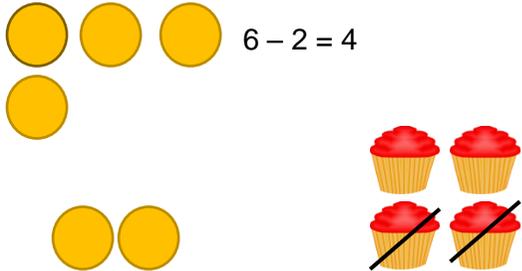
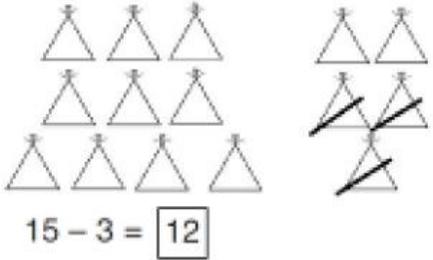
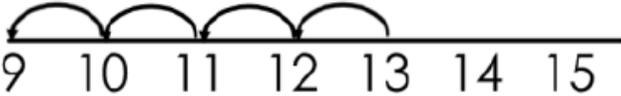
	<p>This can also be done with Base 10 to help children clearly see that 10 ones equal 1 ten and 10 tens equal 100.</p> <p>As children move on to decimals, money and decimal place value counters can be used to support learning.</p>		<p>As the children move on, introduce decimals with the same number of decimal places and different. Money can be used here.</p> $ \begin{array}{r} 72.8 \\ + 54.6 \\ \hline 127.4 \\ 11 \end{array} $ $ \begin{array}{r} \pounds 23.59 \\ + \pounds 7.55 \\ \hline \pounds 31.14 \\ \begin{array}{cccc} 1 & 1 & & 1 \end{array} \end{array} $ $ \begin{array}{r} 23.361 \\ 9.080 \\ + 1.300 \\ \hline 33.741 \\ \begin{array}{cccc} 2 & 1 & & 2 \end{array} \end{array} $
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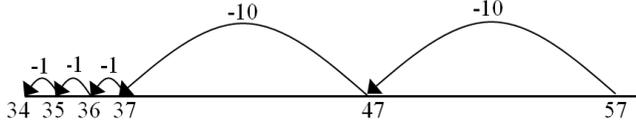
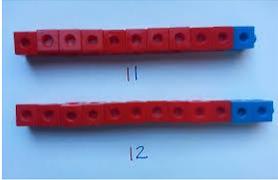
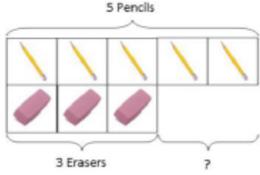
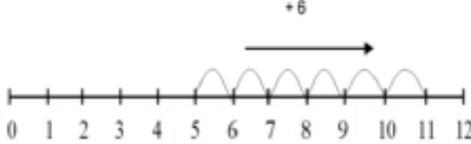
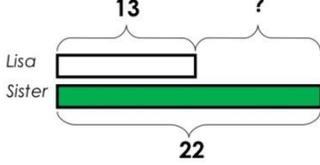
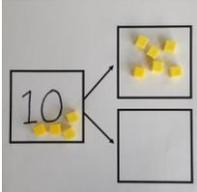
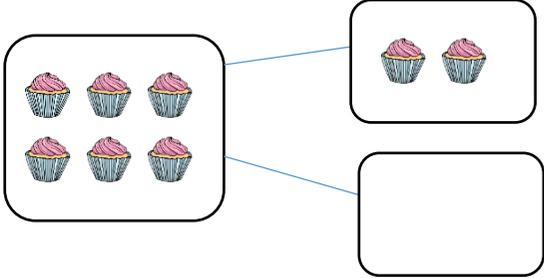
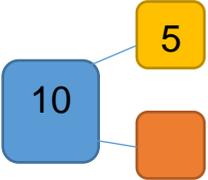
Age related Vocabulary for teaching addition

Reception	add, plus, and, altogether, more, make, sum, total, how many more to make?
Year One	Add, plus, and, altogether, more, make, sum, total, how many more to make?
Year Two	Add, addition, plus, and, altogether, more, make, sum, total, increase, number line, count on, partition, inverse.
Year Three	Add, addition, plus, and, altogether, more, make, sum, total, increase, number line, count on, partition, inverse, how many more to make? How many more is ___ than ___? Hundreds, tens, ones.
Year Four	add, addition, plus, make, more, sum, total, increase, inverse, altogether, how many more to make___? How many more is ___ than ___? Number line, partition, thousands, hundreds, tens, ones, count on.

Year Five and Six	add, addition, plus, make, more, sum, total, increase, inverse, altogether, how many more to make___? How many more is ___ than ___? Number line, partition, millions, hundred thousands, ten thousands, thousands, hundreds, tens, ones, count on.
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Subtraction

Objective and Strategies	Concrete	Pictorial	Abstract
Taking away ones	<p>Use physical objects, counters, cubes etc to show how objects can be taken away.</p>  <p>$6 - 2 = 4$</p>	<p>Cross out drawn objects to show what has been taken away.</p>  <p>$15 - 3 = 12$</p>	<p>$18 - 3 = 15$</p> <p>$8 - 2 = 6$</p>
Counting back	<p>Make the larger number in your subtraction. Move the beads along your bead string as you count backwards in ones.</p>  <p>$13 - 4$</p> <p>Use counters and move them away from the group as you take them away counting backwards as you go.</p>	<p>Count back on a number line or number track</p>  <p>Start at the bigger number and count back the smaller number showing the jumps on the number line.</p>	<p>Put 13 in your head, count back 4. What number are you at? Use your fingers to help.</p>

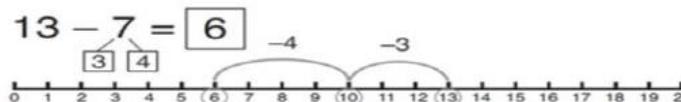
		 <p>This can progress all the way to counting back using two 2 digit numbers.</p>	
<p>Find the difference</p>	<p>Compare amounts and objects to find the difference.</p>  <p>Use cubes to build towers or make bars to find the difference</p>  <p>Use basic bar models with items to find the difference</p>	 <p>Count on to find the difference.</p> <p>Comparison Bar Models</p> <p>Draw bars to find the difference between 2 numbers.</p> <p><i>Lisa is 13 years old. Her sister is 22 years old. Find the difference in age between them.</i></p> 	<p>Hannah has 23 sandwiches, Helen has 15 sandwiches. Find the difference between the number of sandwiches.</p>
<p>Part Whole Model</p>	 <p>Link to addition- use the part whole model to help explain the inverse between addition and subtraction.</p> <p>If 10 is the whole and 6 is one of the parts. What is the other part?</p> <p>$10 - 6 =$</p>	<p>Use a pictorial representation of objects to show the part whole model.</p> 	 <p>Move to using numbers within the part whole model.</p>

Make 10

$14 - 9 =$



Make 14 on the ten frame. Take away the four first to make 10 and then take away one more so you have taken away 5. You are left with the answer of 9.



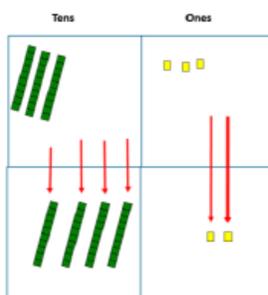
Start at 13. Take away 3 to reach 10. Then take away the remaining 4 so you have taken away 7 altogether. You have reached your answer.

$16 - 8 =$

How many do we take off to reach the next 10?

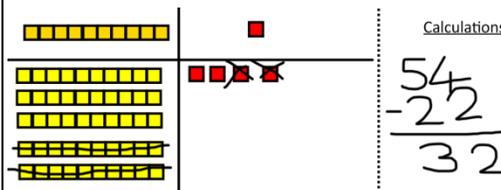
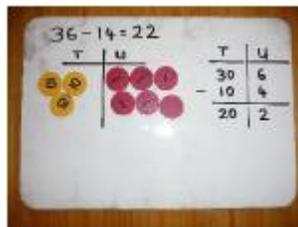
How many do we have left to take off?

Column method without regrouping



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

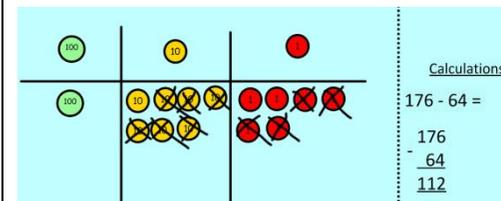
Show how you partition numbers to subtract. Again make the larger number first.



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

$$47 - 24 = 23$$

$$\begin{array}{r} 40 + 7 \\ - 20 + 4 \\ \hline 20 + 3 \end{array}$$



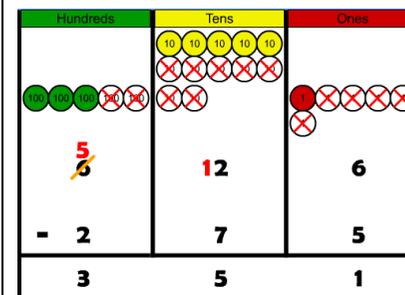
This will lead to a clear written column subtraction.

$$\begin{array}{r} 32 \\ - 12 \\ \hline 20 \end{array}$$

Column method with regrouping

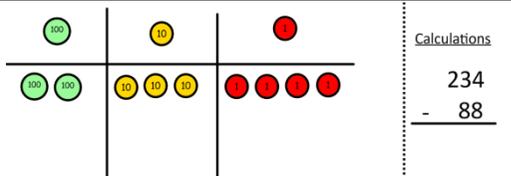
Use Base 10 to start with before moving on to place value counters. Start with one exchange before moving onto subtractions with 2 exchanges.

Make the larger number with the place value counters

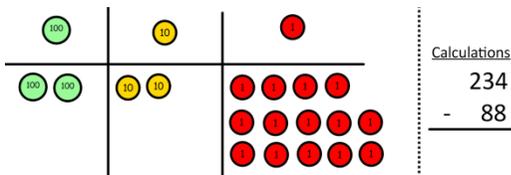


$$836 - 254 = 582$$

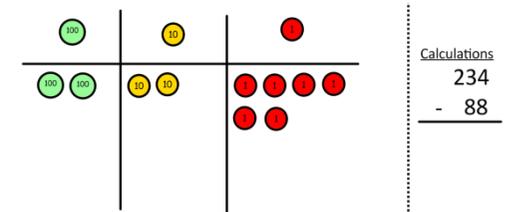
$$\begin{array}{r} \text{H} \quad \text{T} \quad \text{U} \\ 800 \quad 30 \quad 6 \\ - 200 \quad 50 \quad 4 \\ \hline 500 \quad 80 \quad 2 \end{array}$$



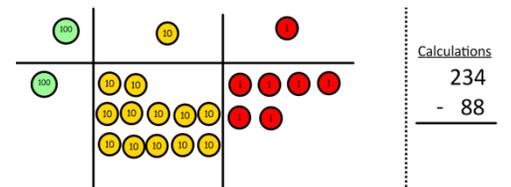
Start with the ones, can I take away 8 from 4 easily? I need to exchange one of my tens for ten ones.



Now I can subtract my ones.



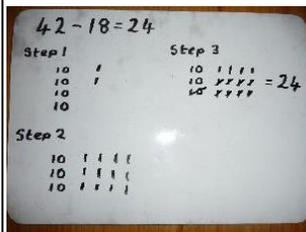
Now look at the tens, can I take away 8 tens easily? I need to exchange one hundred for ten tens.



Now I can take away eight tens and complete my subtraction

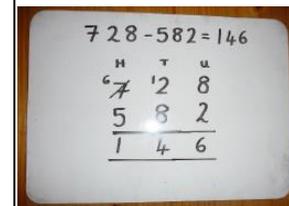
Draw the counters onto a place value grid and show what you have taken away by crossing the counters out as well as clearly showing the exchanges you make.

When confident, children can find their own way to record the exchange/regrouping.



Just writing the numbers as shown here shows that the child understands the method and knows when to exchange/regroup.

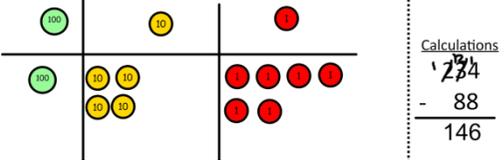
Children can start their formal written method by partitioning the number into clear place value columns.



Moving forward the children use a more compact method.

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

$$\begin{array}{r} 5 \quad 12 \quad 1 \\ 2 \quad \cancel{6} \quad \cancel{3} \quad . \quad 0 \\ - \quad 2 \quad 6 \quad . \quad 5 \\ \hline 2 \quad 3 \quad 6 \quad . \quad 5 \end{array}$$

	 <p>Calculations</p> $\begin{array}{r} 234 \\ - 88 \\ \hline 146 \end{array}$ <p>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.</p>		
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Age related Vocabulary for teaching subtraction

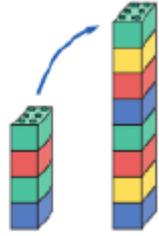
	Age related Vocabulary for teaching subtraction
Reception	Subtract, take away, minus, leave, less, left over, how many are left, how many are gone, fewer
Year One	subtract, take away, minus, leave, less, left over, how many are left? How many are gone? Find the difference.
Year Two	subtract, subtraction, take away, minus, leave, less, left over, how many are left? How many are gone? Inverse, decrease, difference, fewer than.
Year Three	Vocabulary: subtract, subtraction, take away, minus, decrease, leave, less, left over, how many are left/left over? How many are gone? Inverse, decrease, difference, fewer than, more than, hundreds, tens, ones, boundary, how much less is ___ than ___?
Year Four	subtract, subtraction, take away, minus, decrease, leave, how many are left/left over? More than, fewer than, difference, tens/hundreds/thousands boundary, how much more/less is ___?, inverse.
Year Five and Six	subtract, subtraction take away, minus, decrease, leave, how many are left/left over? More than, fewer than, difference, tens/hundreds/thousands/ten thousands boundary, how much more/less is ___?

Multiplication

Objective and Strategies	Concrete	Pictorial	Abstract
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Doubling

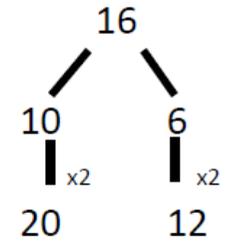
Use practical activities to show how to double a number.



double 4 is 8
 $4 \times 2 = 8$

Draw pictures to show how to double a number.

Double 4 is 8

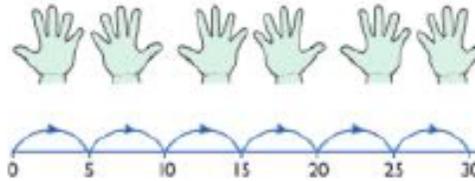


Partition a number and then double each part before recombining it back together.

Counting in multiples



Count in multiples supported by concrete objects in equal groups.



Use a number line or pictures to continue support in counting in multiples.

Count in multiples of a number aloud.

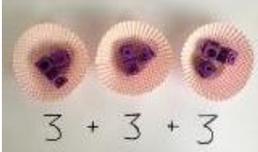
Write sequences with multiples of numbers.

2, 4, 6, 8, 10

5, 10, 15, 20, 25, 30

Repeated addition





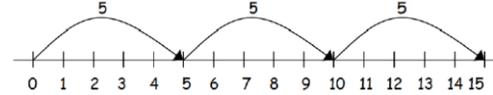
Use different objects to add equal groups.

$$3 + 3 + 3$$

There are 3 plates. Each plate has 2 star biscuits on. How many biscuits are there?



2 add 2 add 2 equals 6



$$5 + 5 + 5 = 15$$

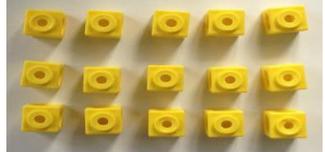
Write addition sentences to describe objects and pictures.



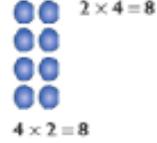
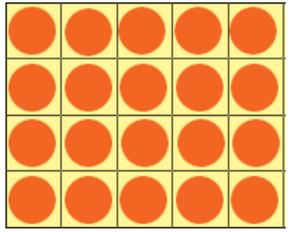
$$2 + 2 + 2 + 2 + 2 = 10$$

Arrays- showing commutative multiplication

Create arrays using counters/ cubes to show multiplication sentences.

Draw arrays in different rotations to find **commutative** multiplication sentences.

Link arrays to area of rectangles.

Use an array to write multiplication sentences and reinforce repeated addition.



$$5 + 5 + 5 = 15$$

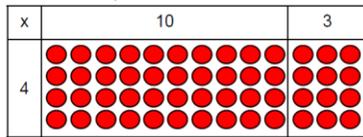
$$3 + 3 + 3 + 3 + 3 = 15$$

$$5 \times 3 = 15$$

$$3 \times 5 = 15$$

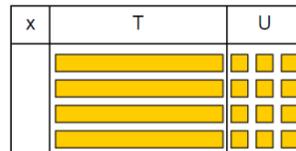
Grid Method

Show the link with arrays to first introduce the grid method.



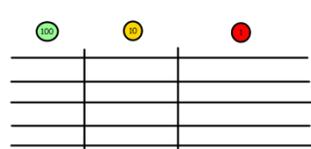
4 rows of 10
4 rows of 3

Move on to using Base 10 to move towards a more compact method.



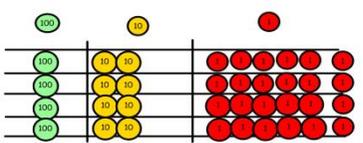
4 rows of 13

Move on to place value counters to show how we are finding groups of a number. We are multiplying by 4 so we need 4 rows.



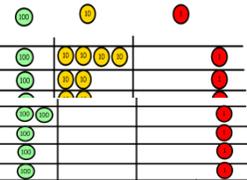
Calculations
4 x 126

Fill each row with 126.



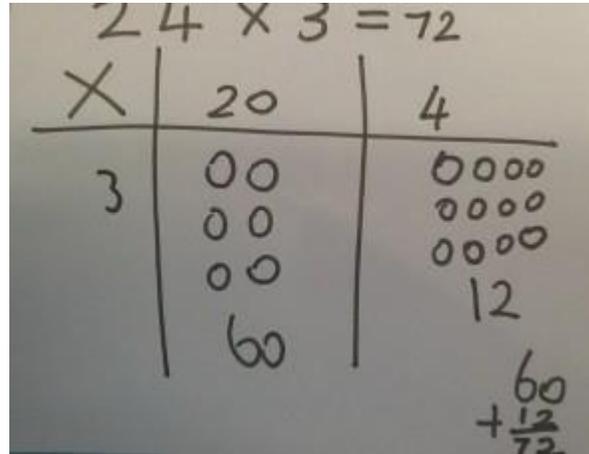
Calculations
4 x 126

Add up each column, starting with the ones making any exchanges needed.



Children can represent the work they have done with place value counters in a way that they understand.

They can draw the counters, using colours to show different amounts or just use circles in the different columns to show their thinking as shown below.



Start with multiplying by one digit numbers and showing the clear addition alongside the grid.

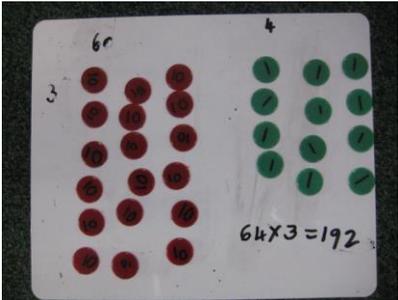
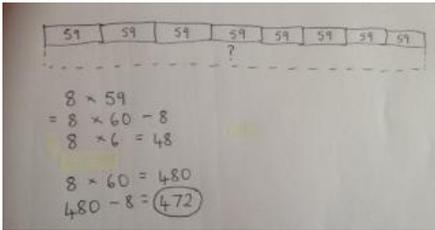
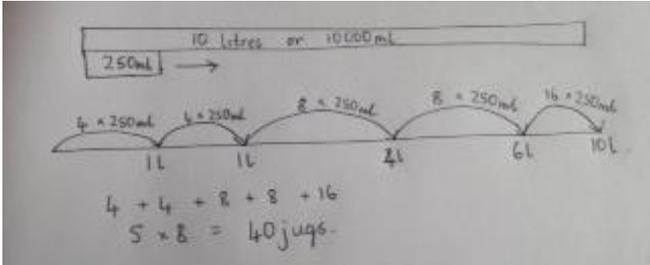
x	30	5
7	210	35

$$210 + 35 = 245$$

Moving forward, multiply by a 2 digit number showing the different rows within the grid method.

	10	8
10	100	80
3	30	24

x	1000	300	40	2
10	10000	3000	400	20
8	8000	2400	320	16

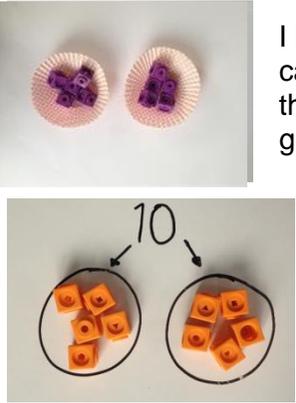
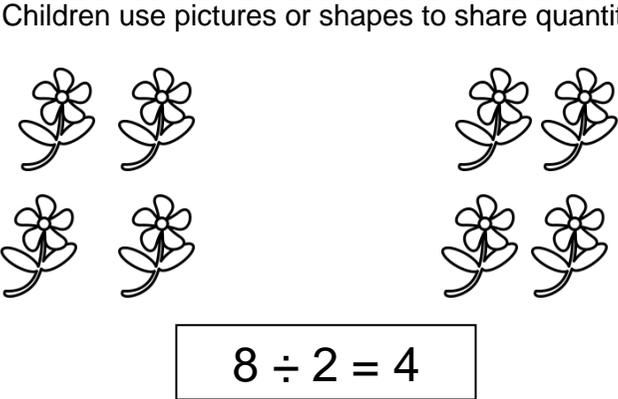
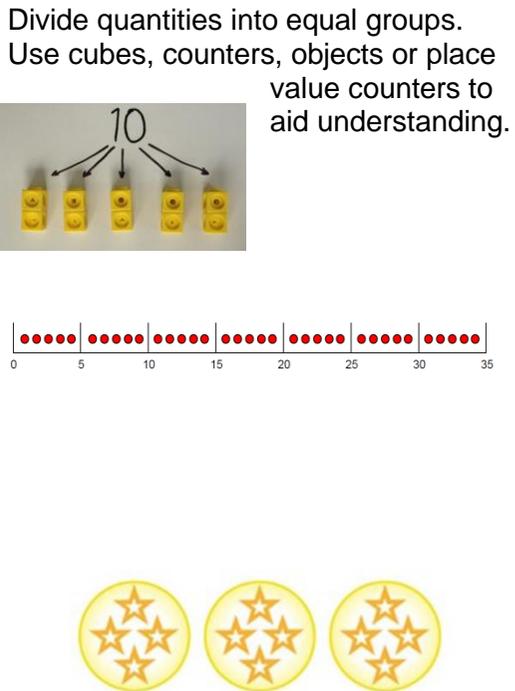
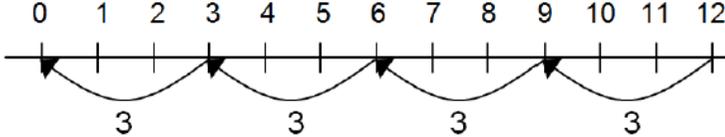
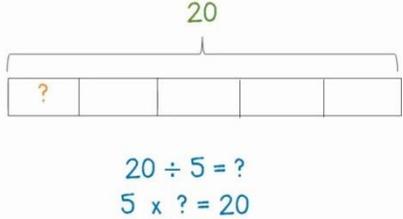
	Then you have your answer.		
<p>Column multiplication</p>	<p>Children can continue to be supported by place value counters at the stage of multiplication.</p>  <p>It is important at this stage that they always multiply the ones first and note down their answer followed by the tens which they note below.</p>	<p>Bar modelling and number lines can support learners when solving problems with multiplication alongside the formal written methods.</p>  	<p>Start with long multiplication, reminding the children about lining up their numbers clearly in columns.</p> <p>If it helps, children can write out what they are solving next to their answer.</p> $ \begin{array}{r} 32 \\ \times 24 \\ \hline 8 \quad (4 \times 2) \\ 120 \quad (4 \times 30) \\ 600 \quad (20 \times 2) \\ \hline 768 \quad (20 \times 30) \end{array} $ <p>This moves to the more compact method.</p>

			<p>124 × 26 becomes</p> $ \begin{array}{r} 1 2 4 \\ \times 2 6 \\ \hline 7 4 4 \\ 2 4 8 0 \\ \hline 3 2 2 4 \\ \hline 1 1 \end{array} $ <p>Answer: 3224</p> <p>It is important to remind children to put on their 0 place holder to indicate they are multiplying their tens. They can initially multiply the ones and the tens in different colours so their exchanges are more easily identified.</p>
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Age related Vocabulary for teaching multiplication

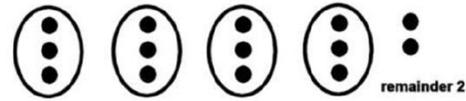
Reception	Doubles, groups.
Year One	Lots of, groups, repeat, same size.
Year Two	Lots of groups, repeat, same size, times, multiply, jumps of, steps of, multiplied by, multiple of, array, row, column, double, repeated addition.
Year Three	lots of, groups, repeat, same size, times, multiply, jumps of, steps of, multiplied by, multiple of, array, row, column, double, repeated addition, product, grid method.
Year Four	lots of, groups, repeat, same size, times, multiply, jumps of, steps of, multiplied by, multiple of, array, row, column, double, repeated addition, product, grid method, short multiplication.
Year Five	lots of, groups, repeat, same size, times, multiply, jumps of, steps of, multiplied by, multiple of, array, row, column, double, repeated addition, product, grid method, short multiplication.
Year Six	lots of, groups, repeat, same size, times, multiply, jumps of, steps of, multiplied by, multiple of, array, row, column, double, repeated addition, product, grid method, short multiplication.

Division

Objective and Strategies	Concrete	Pictorial	Abstract
<p>Sharing objects into groups</p>	<p>I have 10 cubes, can you share them equally in 2 groups?</p> 	<p>Children use pictures or shapes to share quantities.</p> 	<p>Share 9 buns between three people.</p> $9 \div 3 = 3$
<p>Division as grouping</p>	<p>Divide quantities into equal groups. Use cubes, counters, objects or place value counters to aid understanding.</p> 	<p>Use a number line to show jumps in groups. The number of jumps equals the number of groups.</p>  <p>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.</p> 	$28 \div 7 = 4$ <p>Divide 28 into 7 groups. How many are in each group?</p>

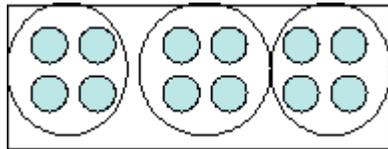


Draw dots and group them to divide an amount and clearly show a remainder.



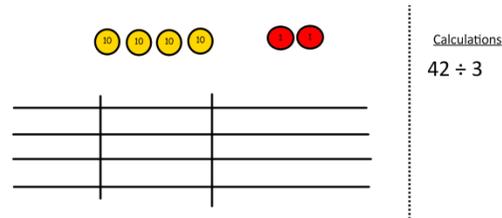
Short division

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

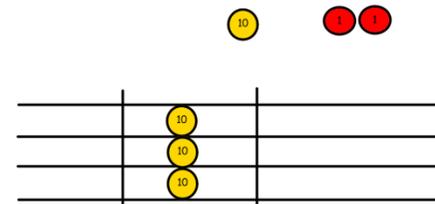


Encourage them to move towards counting in multiples to divide more efficiently.

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



$42 \div 3 =$
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.



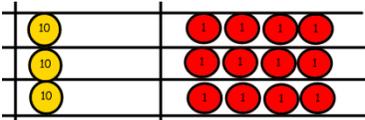
We exchange this ten for ten ones and then share the ones equally among the groups.

Begin with divisions that divide equally with no remainder.

$$\begin{array}{r} 218 \\ 3 \overline{) 872} \end{array}$$

Move onto divisions with a remainder.

$$\begin{array}{r} 86 \text{ r } 2 \\ 3 \overline{) 432} \end{array}$$

		 <p>We look how much in 1 group (1 row on the chart above) so the answer is 14.</p>	<p>Finally move into decimal places to divide the total accurately.</p> $ \begin{array}{r} 14.6 \\ 35 \overline{) 511.0} \\ \underline{35} \\ 161 \\ \underline{140} \\ 210 \\ \underline{210} \\ 0 \end{array} $ <p>Children will also express remainders as fractions.</p> $ \begin{array}{r} 152 \frac{1}{4} \\ 4 \overline{) 621} \\ \underline{24} \\ 181 \\ \underline{160} \\ 21 \end{array} $
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Long Division

Children should be reminded that division is repeated subtraction – they are taking away groups of multiples of the divisor at each step.

Children should be encouraged to list multiples of the divisor so they can see how many groups of this number can be divided. If they find this difficult, they can partition e.g. 27 into 20s and 7s then find the multiples before adding them back together.

$$\begin{array}{l}
 27 \\
 20 \quad 7 = 27 \\
 40 \quad 14 = 54 \\
 60 \quad 21 = 81
 \end{array}$$

Some children will still use the 'short' bus stop to divide numbers by two digits. This can prove more difficult as remainder must be calculated mentally rather than written, making it possible for calculation errors.

15		
30		
45		
60		
75		
90		
105		
120		
135		
150		

15 | 3640

15 into 3 doesn't go, so look at the next digit.

15 goes into 36 two times, so put a 2 above the 6.
 $15 \times 2 = 30$

Take that 30 away from the 36 to get your remainder.
 $36 - 30 = 6$

Next, carry the 4 down to make 64.

15 goes into 64 four times, so put a 4 above the 4.
 $15 \times 4 = 60$

Take 60 from the 64 to get your remainder.
 $64 - 60 = 4$

Carry the 0 down to make 40.

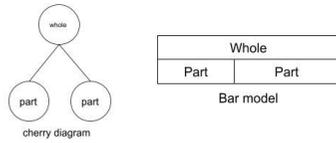
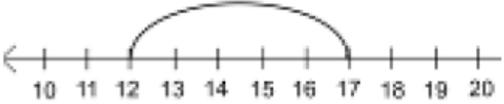
15 goes into 40 two times, so put a 2 above the 0.
 $15 \times 2 = 30$

Take 30 from the 40 to get your remainder.
 $40 - 30 = 10$

Age related Vocabulary for teaching division	
Reception	Sharing, into groups, , halve, share, one each... two each... three each etc.
Year One	Sharing into groups, fairly, equal, halve, share, one each...two each...three each... etc.
Year Two	sharing, share equally, into groups, fairly, equal, halve, share, one each...two each...three each... etc., divided by, divided into, left over, remainder, how many groups?
Year Three	sharing, equally, into groups, fairly, equal, halve, share, one each...two each...three each... etc. divided by, divided onto, left over, remainder, how many groups?
Year Four	sharing, share equally, into groups, fairly, equal, halve, share, divided by, divided into, left over, remainder, how many groups, factor, divisible by, chunking, inverse, quotient.

Year Five	Sharing, share equally, into groups, fairly, equal, halve, share, divided by, divided into, left over, remainder, how many groups, factor, divisible by, divisibility, chunking, inverse, quotient.
Year Six	Sharing, share equally, into groups, fairly, equal, halve, share, divided by, divided into, left over, remainder, how many groups, factor, divisible by, divisibility, chunking, inverse, quotient.

Resources to support teaching and learning (minimum recommended, additional resources to be used as required)

Multi link		Part-part whole templates	
Number lines with range on increments		Place value counters	
Bead strings		100 squares	
Base 10/Dienes		Multiplication squares	
Place Value Grid		Numicon	