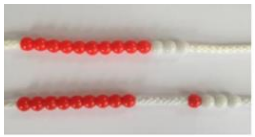
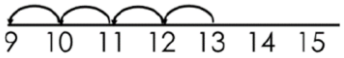
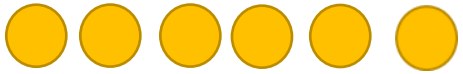
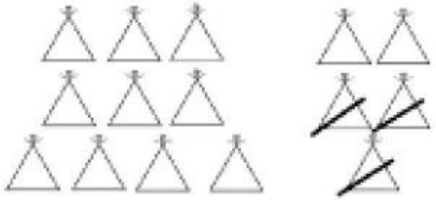
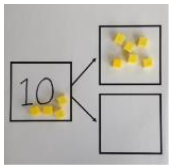
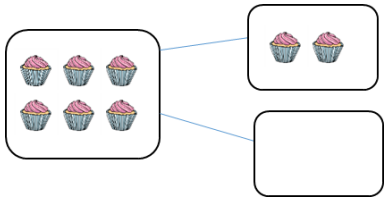
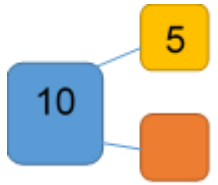
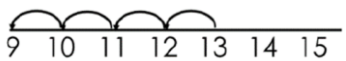
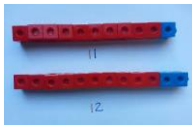
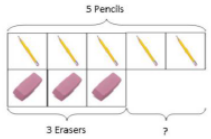
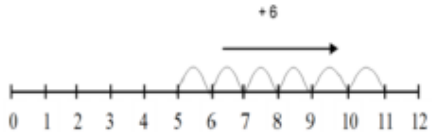
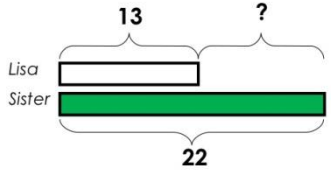
GROVE PRIMARY SCHOOL AND NURSERY
SUBTRACTION

Nursery & Reception	Nursery & Reception Subtraction		
	Concrete	Picture	Abstract
Subtraction as counting back or taking away This is perhaps the most intuitive aspect of subtraction. Children can establish how many in a set and then count back as one, two or three objects are removed.	Make the larger number in your subtraction. Use counters and move them away from the group as you take them away counting backwards as you go. 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 a pot, count back 4. What number are you at? Use your fingers to help.
Year 1 Subtraction			
	Concrete	Picture	Abstract
Taking away, how many left? Crossing out	Use physical objects, counters, cubes etc. to show how objects can be taken away.  6 – 2 = 4 4 – 2 = 2 	Cross out drawn objects to show what has been taken away.  15 – 3 = 12	18 – 3 = 15 8 – 2 = 6

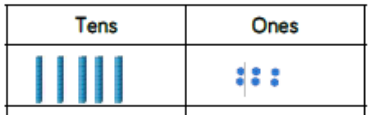
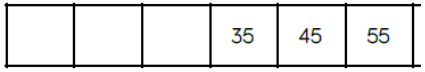
GROVE PRIMARY SCHOOL AND NURSERY
SUBTRACTION

Finding a part, breaking apart	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 =	Use a pictorial representation of objects to show the part part whole model. 	Move to using numbers within the part whole model. 
Counting back	Make the larger number in your subtraction. Use counters and move them away from the group as you take them away counting backwards as you go. 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. This can progress all the way to counting back using two 2 digit numbers.	Put 13 in your head, count back 4. What number are you at? Use your fingers to help.

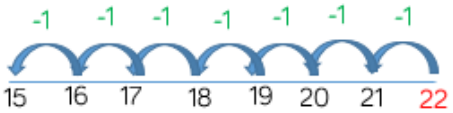
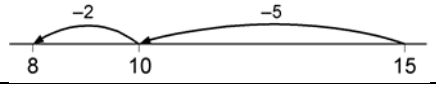
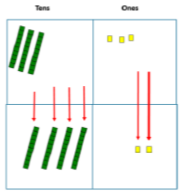
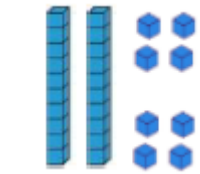
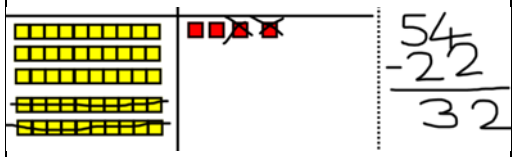
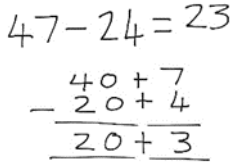
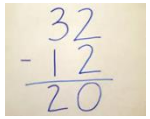
GROVE PRIMARY SCHOOL AND NURSERY
SUBTRACTION

Finding the difference	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 Place the numicon on top of each other.	Count on to find the difference.  **Comparison Bar Models** *Lisa is 13 years old. Her sister is 22 years old. Find the difference in age between them.*  Draw bars to find the difference between 2 numbers.	Hannah has 23 sandwiches, Helen has 15 sandwiches. Find the difference between the number of sandwiches.

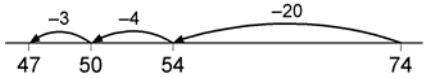
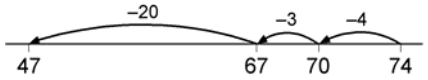
Year 2 Subtraction

	Concrete	Picture	Abstract
10 less Subtract 10s	Use base 10  	Number tracks  Number squares Explore patterns of adding 10. Spiders jump down	22 – 10 =

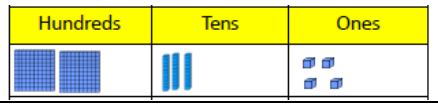
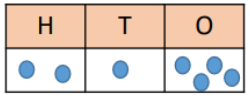
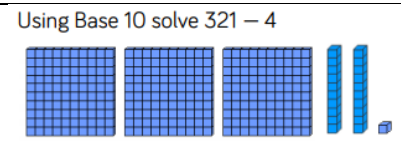
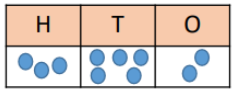
GROVE PRIMARY SCHOOL AND NURSERY
SUBTRACTION

Subtract a 1-digit number from a 2-digit number – crossing ten	Use a bead string 	Steps in subtraction can be recorded on a number line.  Then use number bonds to become more efficient. 	22 – 7 = 15 – 7 =
Subtract a 2-digit number from a 2-digit number – not crossing ten	Use Base 10 to make the bigger number then take the smaller number away.  28 – 13 = 	Draw the Base 10 or place value counters alongside the written calculation to help to show working. 	Use partitioning:  Column Subtraction: 

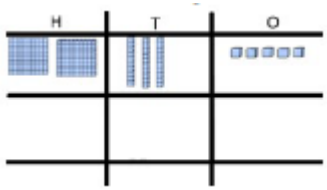
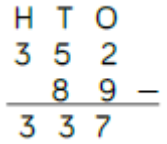
GROVE PRIMARY SCHOOL AND NURSERY
SUBTRACTION

Subtract a 2-digit number from a 2-digit number – crossing ten – subtract ones and tens	Use Base 10 to start with before moving on to place value counters. Start with one exchange before moving onto subtractions with 2 exchanges.	The Empty Number Line 74 – 27 = 47 worked by counting back:  or in different order:  	Expanded Vertical Method: Use partitioning: $\begin{array}{r} 70+4 \\ -\ 20+7 \\ \hline \end{array}$ $\begin{array}{r} \overset{60}{\cancel{70}}+\overset{14}{\cancel{4}} \\ -\ 20+7 \\ \hline 40+7 \end{array}$ Column Vertical method: $\begin{array}{r} \overset{6}{\cancel{7}}\ \overset{14}{\cancel{4}} \\ -\ 2\ 7 \\ \hline 4\ 7 \end{array}$

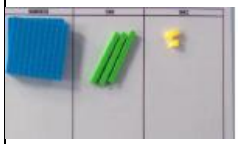
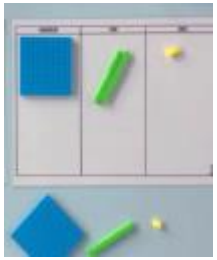
GROVE PRIMARY SCHOOL AND NURSERY
SUBTRACTION

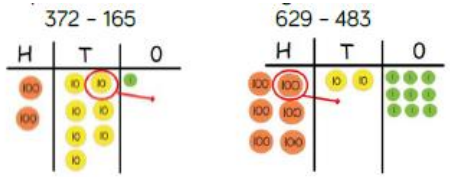
Year 3 Subtraction			
Year 3	Concrete	Picture	Abstract
subtract multiples of 100	Use base 10 / place value counters	Use the picture to solve: 234 – 100 = 234 – 200 = 	725 – 300 = 725 – 600 =
Subtract 3-digit numbers and ones – not crossing 10	Use base 10 / place value counters	Use pictures: 214 – 3= 	Mentally solve 725 – 4 = Sam has 534 team points and gets four more. Tim has 534 team points and loses four of his. How many team points does each child have? Who has the most?
Subtract a 1-digit number from a 3-digit number – crossing 10		Use pictures of base 10 or place value counters	132 – 4 = Mental subtraction: partition the 4 into 2 and 2. 132 – 2 = 130 - 2 = 128
subtract 3-digit numbers and tens – not crossing 100	Use place value counters to solve: 452 – 2 tens = 	Use pictures of base 10 or place value counters	432 – 10 = 768 – 50 =

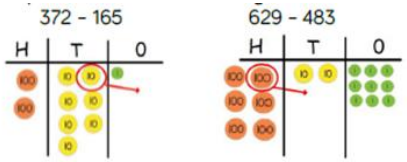
GROVE PRIMARY SCHOOL AND NURSERY
SUBTRACTION

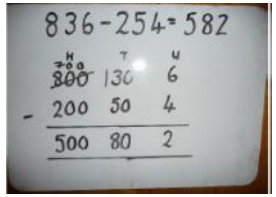
Subtract tens from a 3-digit number – crossing 100		Count back in tens to solve the calculation 240 – 70 = 	
subtract 100s	Use base 10 / place value counters and practise taking the hundreds away		Complete mentally: 675 – 300 = 897 – 500 =
subtract any 2-digit from a 3-digit number – not crossing 10 or 100	Use base 10 / place value counters and practise taking them away		725 – 14 = 725 – 21 =
Subtract a 2-digit number from a 3-digit number – cross the 1s, 10 or 100 The term 'exchange' will be key during this small step and their understanding of place value will help them to see when they should be exchanging.	Use dienes / base 10 or place value counters 235 – 29 = 	Use pictures and draw 553 – 32 = 	Expanded Column Method Children can start their formal written method by partitioning the number into clear place value columns. 

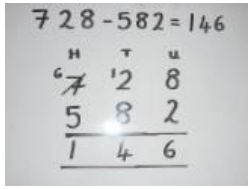
GROVE PRIMARY SCHOOL AND NURSERY
SUBTRACTION

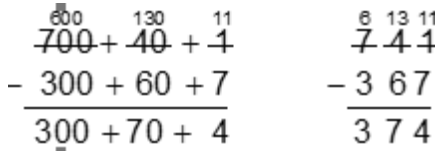
<table>
<tr>
<td>Subtract a 3-digit number from a 3-digit number – no exchange</td>
<td>233 – 121 =
 
No regrouping
  </td>
<td>See above</td>
<td>725 – 423 =

725 = 312 =</td>
</tr>
<tr>
<td>Subtract a 3-digit number from a 3-digit number – exchange</td>
<td>Use place value counters
 
</td>
<td>Show pictures

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.
 
</td>
<td>Expanded Column Method

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.
 

Example: 741 – 367
 
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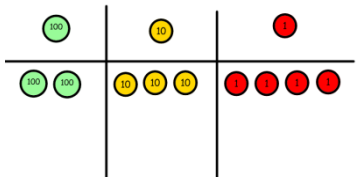
</tr>
</table>

GROVE PRIMARY SCHOOL AND NURSERY
SUBTRACTION

Year 4	Concrete	Picture	Abstract

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

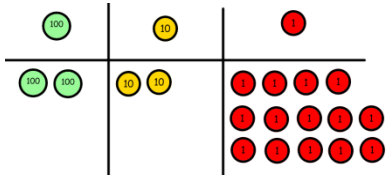
Make the larger number with the place value counters



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.

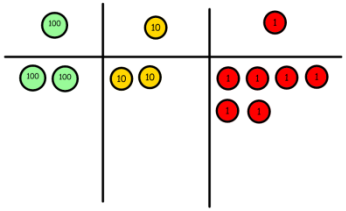


Calculations

234
- 88

Now I can subtract my ones.

Now look at the tens, can I take away 8 tens easily?

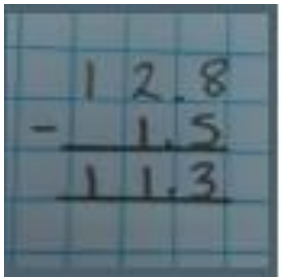


Calculations

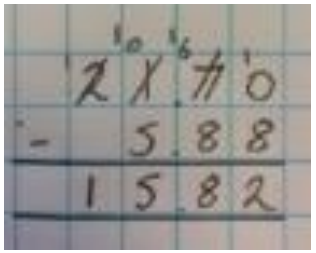
234
- 88

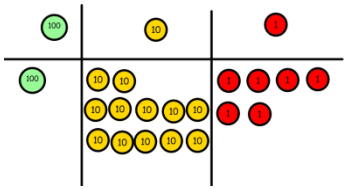
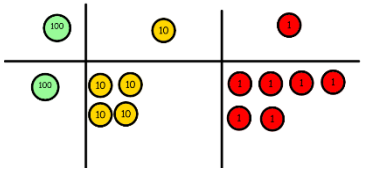
I need to exchange one hundred for ten tens.

Decimal subtraction without regrouping



Decimal subtraction with regrouping



	 Calculations 234 - 88 Now I can take away eight tens and complete my subtraction  Calculations ~~2~~ ~~3~~ 4 - 88 146 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.	

Year 5 & 6 Subtraction	
Year 5 & 6	Abstract
Expanded Vertical Method and Compact Vertical Method	Example: 563 – 241, no adjustment or decomposition needed Expanded method $\begin{array}{r} 500+60+3 \\ -\ 200+40+1 \\ \hline 300+20+2 \end{array}$ leading to $\begin{array}{r} 563 \\ -\ 241 \\ \hline 322 \end{array}$ Start by subtracting the units, then the tens, then the hundreds. Refer to subtracting the tens, for example, by saying 'sixty take away forty', not 'six take away four'. Example: 563 – 271, adjustment from the hundreds to the tens, or partitioning the hundreds $\begin{array}{r} 500+60+3 \\ -\ 200+70+1 \\ \hline \end{array}$ $\begin{array}{r} 400+160+3 \\ -\ 200+\ 70+1 \\ \hline 200+\ 90+2 \end{array}$ $\begin{array}{r} \overset{400}{\cancel{500}}+\overset{160}{\cancel{60}}+3 \\ -\ 200+70+1 \\ \hline 200+90+2 \end{array}$ $\begin{array}{r} \overset{4}{\cancel{5}}\ \overset{16}{\cancel{6}}3 \\ -\ 2\ 7\ 1 \\ \hline 2\ 9\ 2 \end{array}$ Begin by reading aloud the number from which we are subtracting: 'five hundred and sixty-three'. Then discuss the hundreds, tens and ones components of the number, and how 500 + 60 can be partitioned into 400 + 160. The subtraction of the tens becomes '160 minus 70', an application of subtraction of multiples of ten. 932 – 457 becomes $\begin{array}{r} \overset{8}{\cancel{9}}\ \overset{12}{\cancel{3}}\ \overset{1}{2} \\ -\ 4\ 5\ 7 \\ \hline 4\ 7\ 5 \end{array}$ Answer: 475 Build up to the most efficient method.