




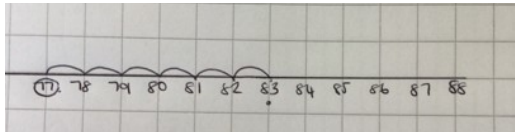
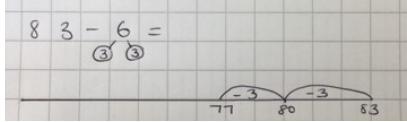

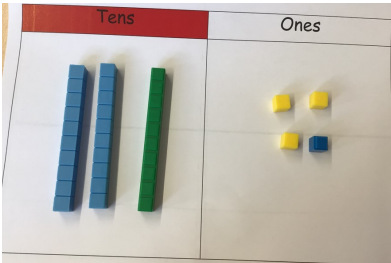
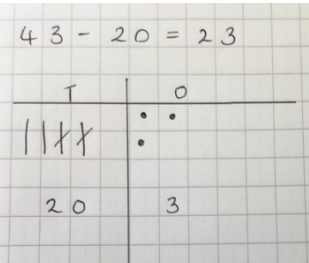
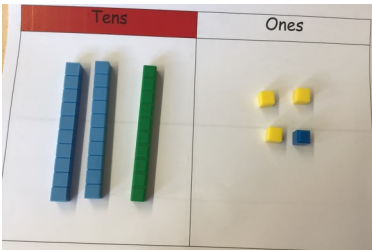
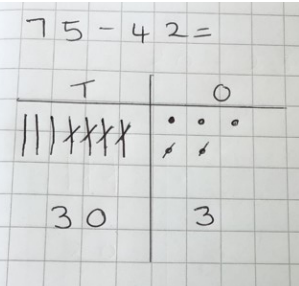
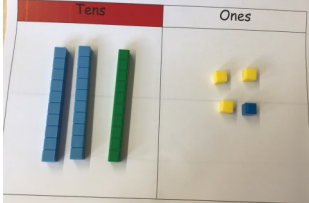
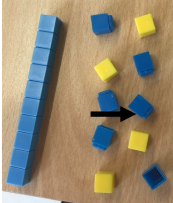
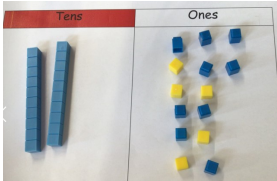
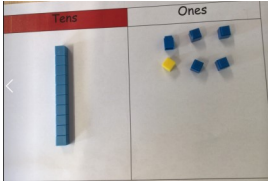
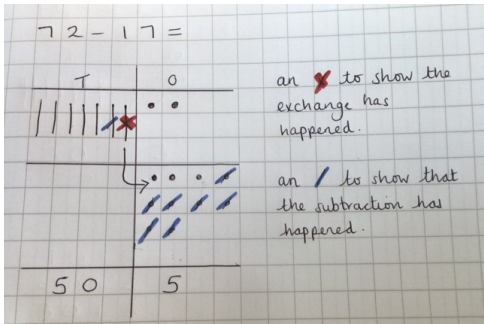
## The Discovery School Calculation Policy - Year 2 Subtraction

### Additional Notes :

Bar models must be used as a tool for problem solving as this ensures the children understand the structure of the problem. When presenting questions to the children ensure a range of measures are also used e.g. subtracting money or grams and kg.

### National Curriculum Objectives

solve problems with addition and subtraction: ☐ using concrete objects and pictorial representations, including those involving numbers, quantities and measures ☐ applying their increasing knowledge of mental and written methods ☐ recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 ☐ add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ☐ a two-digit number and ones ☐ a two-digit number and tens ☐ two two-digit numbers ☐ adding three one-digit numbers ☐ show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot ☐ recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Objective	Concrete	Pictorial	Abstract
Subtract a 2 digit number and ones	$47 - 9 = 38$  Children to make 47 on the bead string using their place value knowledge (40 and 7). Then subtract by removing the beads one by one. A number line or hundred square could be displayed to support counting back. Children should then use their place value knowledge to work out the final answer. 	$83 - 6 = 77$  Children can use a number line to count back in ones. The children are not expected to draw their own number line (but can if appropriate)   Move onto an empty number line using bonds to 10.   Children begin to notice that if they subtract 3 they can get to the 80 and they will then have 3 more left to subtract. This helps to support mental methods.	$63 - 8 = 55$   $63 - 3 = 60$ $60 - 5 = 55$
Subtract a 2 digit number and tens	Make the larger number first. Physically take away the tens. Can be done using dienes or place value counters whichever is deemed appropriate. $34 - 20 = 14$   Physically remove the 2 tens and count up what is remaining.	Children to cross out the tens and count what is remaining. $43 - 20 = 23$   To be supported by an empty number line if appropriate.	$43 - 20 = 23$  Children need to know here that subtraction is not commutative.
2 digit subtract a 2 digit (no regroup)	Start by <u>subtracting the ones first</u> . Children need to physically remove them from the chart. $34 - 13 = 11$   Subtract 3 ones and then one ten.	Children to draw either dienes or counters. Cross out the subtracted number <u>starting with the tens</u> $75 - 42 =$ 	$70 + 5 -$ $40 + 2$ $30 + 3$  This will lead to a clear column subtraction in year 3
Subtract 2 digit and 2 digit (with regroup)	$34 - 18 =$  Make largest number   Exchange   Add the ten ones   Complete subtraction 	$72 - 17 =$   It is important to follow this layout as it feeds into the later years. X shows an exchange has happened / shows that they have been subtracted	$72 - 17 = 55$  Representing it as below shows the stages of subtraction. 