



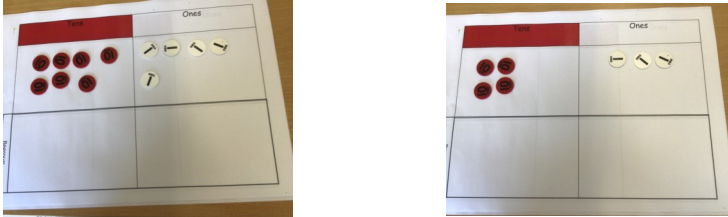
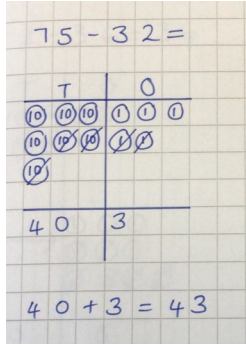
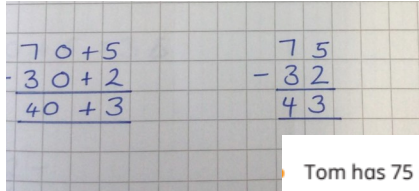

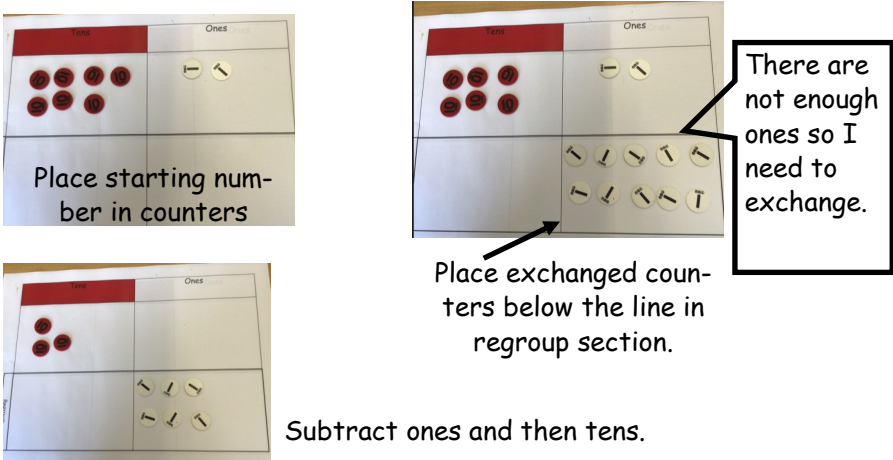
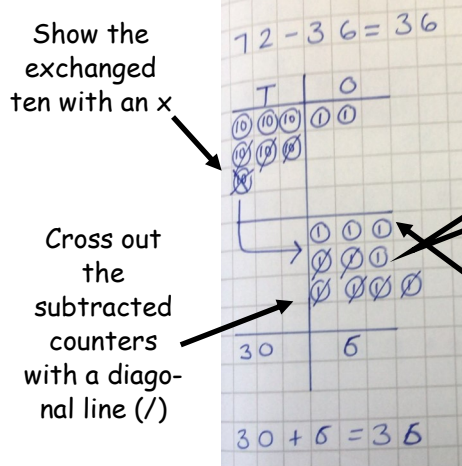
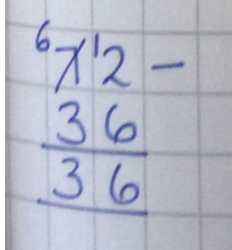
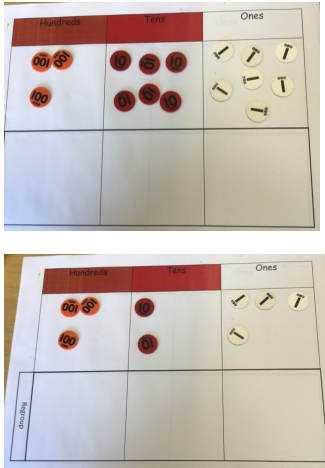
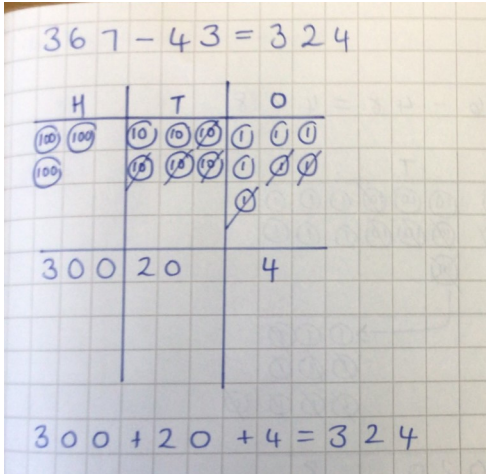
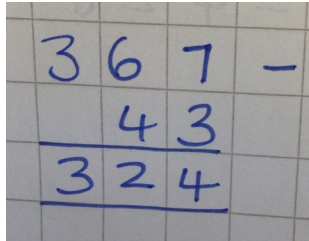
# The Discovery School Calculation Policy - Year 3 Subtraction

## Additional Notes

You will need to use the T & O and H T & O place value grids with the regroup sections. Bar models must be used as a tool for problem solving as this ensures the children understand the structure of the problem.

## National Curriculum Objectives

Pupils should be taught to: ☐ add and subtract numbers mentally, including: ☐ a three-digit number and ones ☐ a three-digit number and tens ☐ a three-digit number and hundreds ☐ add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction ☐ estimate the answer to a calculation and use inverse operations to check answers ☐ solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Objective	Concrete	Pictorial	Abstract
2 digit subtract 2 digit (no regroup)	$75 - 32 = 43$  Children to physically remove the counters from the grid starting with the ones	$75 - 32 =$  Ensure the children show the subtraction with one diagonal line (/) and not with an x	Some children may need to see the expanded method before the formal written subtraction.  Tom has 75 marbles. He gives 35 marbles to Amir. How many marbles does Tom have left? 
2 digit subtract 2 digit (with regroup)	$72 - 36 = 36$  Place starting number in counters There are not enough ones so I need to exchange. Place exchanged counters below the line in regroup section. Subtract ones and then tens.	$72 - 36 = 36$  Show the exchanged ten with an x Cross out the subtracted counters with a diagonal line (/) There are not enough ones so I need to exchange. Ensure a line is drawn to separate the original number from the 'added ten ones'. This is important to lead into the formal written method.	Move on to the formal written method when appropriate. 
3 digit subtract 2 digit (no regroup)	$367 - 43 =$  Children to physically remove the counters from the grid starting with the ones	$367 - 43 = 324$  Ensure the children show the subtraction with one diagonal line (/) and not with an x	Move on to the formal written method when appropriate. 



# The Discovery School Calculation Policy - Year 3 Subtraction

Objective	Concrete	Pictorial	Abstract		
3 digit subtract 2 digit (with regroup)	<div>476 - 48 =</div> <div></div> <div>Finally physically remove the 48.</div> <div>Place exchanges ones below the line</div>	<div><math>476 - 48 = 428</math></div> <div></div> <div>Show the exchange with and x and the subtracted counters with a diagonal line (/)</div>	<div>It is now clear to see the link between the pictorial and the abstract.</div> <div></div> <div>This shows where the extra 'ones' have come from.</div> <div>This shows why there are only 6 tens now.</div> <div>Calculate the missing number in each model.</div> <div><table><tr><td>526</td></tr><tr><td>78    ?</td></tr></table></div>	526	78    ?
526					
78    ?					
3 digit subtract 3 digit (with one regroup)	<div>374 - 283 =</div> <div></div> <div>Starting number</div> <div>Place the ten tens below the line in the regroup section</div> <div>First remove the 3 ones</div> <div>Finally remove the tens to reveal the answer.</div>	<div><math>374 - 283 = 91</math></div> <div></div> <div>Show the exchange with and x and the subtracted counters with a diagonal line (/)</div>	<div>Apply the example above to show the link between pictorial and abstract if required.</div> <div></div>		
3 digit subtract 3 digit (with two regroup)	<div>It is not compulsory to complete this step as most children will move straight to the abstract by now.</div> <div></div> <div>Starting number</div> <div>First exchange and then remove the ones.</div> <div>Answer</div>	<div><math>732 - 457 =</math></div> <div></div> <div>Show the exchange with and x and the subtracted counters with a diagonal line (/)</div>	<div>By this stage children should be secure in using the formal written method.</div> <div></div> <div>Alex walks 325 m on Monday and 167 m on Tuesday. How much further does she walk on Monday?</div> <div></div>		