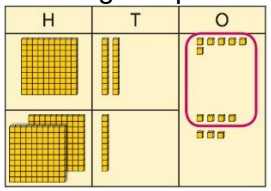
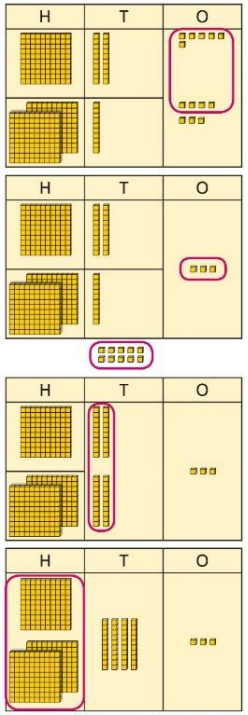
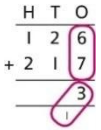
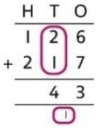
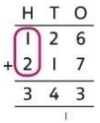
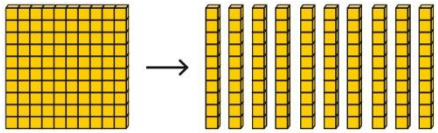
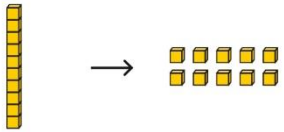
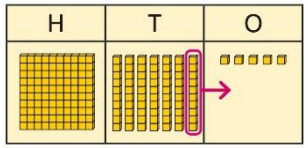
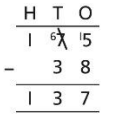
Year Three -Strategies Your Child is Using in School

	Concrete objects	Pictorial representations	Abstract method
Addition Adding two 3-digit numbers with exchange	Use place value equipment to enact the exchange required.  *There are 13 ones.* *I will exchange 10 ones for 1 ten.*	Model the stages of column addition using place value equipment on a place value grid.  	Use column addition, ensuring understanding of place value at every stage of the calculation.    *126 + 217 = 343* Note: Children should also study examples where exchange is required in more than one column, for example *185 + 318 = ?*

<table>
<tr>
<td>Subtraction

3-digit number − up to 3-digit number, exchange required</td>
<td>Use equipment to enact the exchange of 1 hundred for 10 tens, and 1 ten for 10 ones.
 
  </td>
<td> 

Draw the required exchange place value on a grid.

175 − 38 = ?
I need to subtract 8 ones, so I will exchange a ten for 10 ones.</td>
<td>Use column subtraction to work accurately and efficiently.
 

175 – 38 = 137

If the subtraction is a 3-digit number subtract a 2-digit number, children should understand how the recording relates to the place value, and so how to line up the digits correctly. Children should also understand how to exchange in calculations where there is a zero in the 10s column.
 
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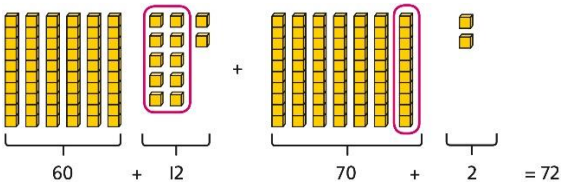
<td>Multiplication

Multiplying a 2-digit number by a 1-digit number, expanded column method</td>
<td>Use place value equipment to model how 10 ones are exchanged for a 10 in some multiplications.

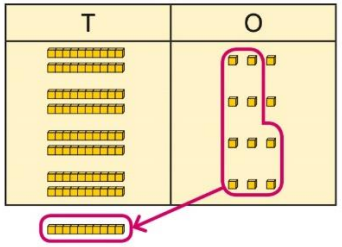
3 × 24 = ?

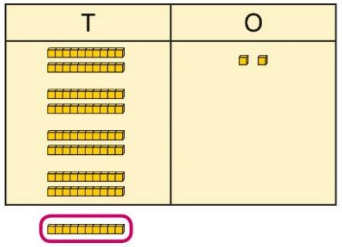
3 × 20 = 60
3 × 4 = 12

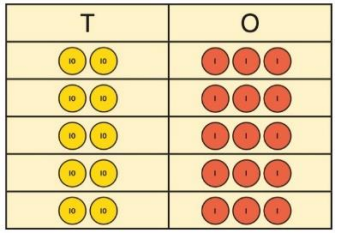
3 × 24 = 60 + 12
3 × 24 = 70 + 2
3 × 24 = 72</td>
<td>Understand that multiplications may require an exchange of 1s for 10s, and also 10s for 100s.

4 × 23 = ?

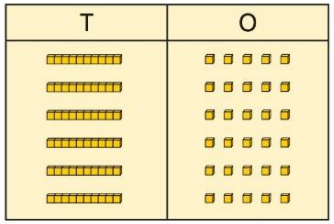
 

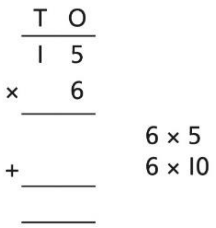
4 × 23 = 92

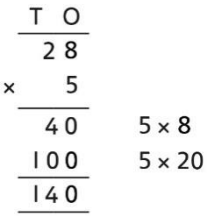
5 × 23 = ?
5 × 3 = 15
5 × 20 = 100
5 × 23 = 115</td>
<td>Children may write calculations in expanded column form, but must understand the link with place value and exchange.

Children are encouraged to write the expanded parts of the calculation separately.

5 × 28 = ?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Division 2-digit number divided by 1-digit number, with remainders	Use place value equipment to understand the concept of remainder. *Make 29 from place value equipment. Share it into 2 equal groups*.  *There are two groups of 14 and 1 remainder.*	Draw place value equipment to understand the concept of remainder in division. *29 ÷ 2 = ?*  *29 ÷ 2 = 14 remainder 1*	Partition to divide, understanding the remainder in context. 67 children try to make 5 equal lines. 67 = 50 + 17 50 ÷ 5 = 10 17 ÷ 5 = 3 remainder 2 67 ÷ 5 = 13 remainder 2 There are 13 children in each line and 2 children left out.