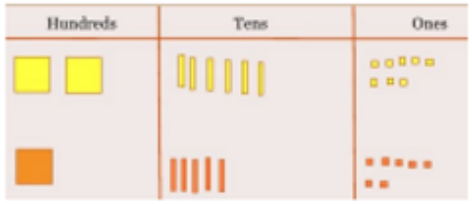
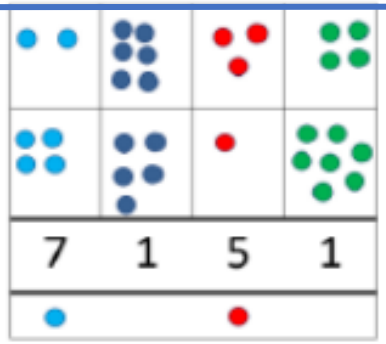
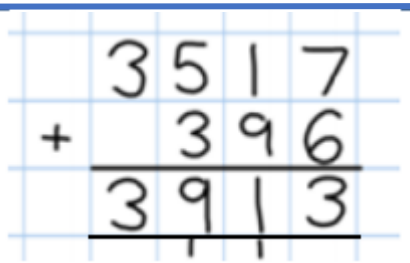
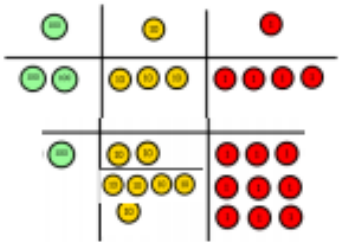
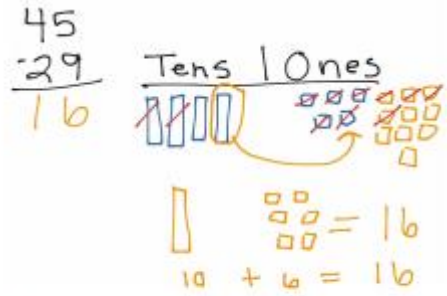
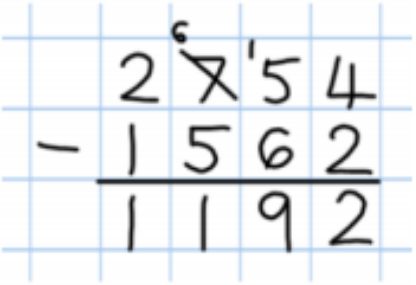
Year 4 Calculation Policy

Addition

Objective & Strategy	Concrete	Pictorial	Abstract
Y4—add numbers with up to 4 digits	Children continue to use dienes or pv counters to add. Exchange ten ones for a ten and ten tens for a hundred and ten hundreds for a thousand. 	 Draw representations using pv grid.	 Continue from previous work to regroup hundreds as well as tens (under the 'big equals'). Relate to money and measures.

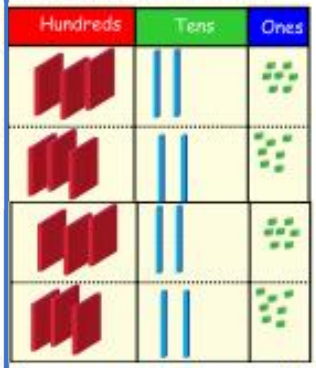
Subtraction

Objective & Strategy	Concrete	Pictorial	Abstract
Subtracting tens and ones Year 4 subtract with up to 4 digits. *Introduce decimal subtraction through context of money*	234 - 179  Model process of exchange using numicon and dienes. Then, move onto PV counters.	 Children may draw base ten or PV counters and cross off.	 Ensure children know the vocabulary of exchange and regroup.

Multiplication

Column multiplication

Children can continue to be supported by place value counters at the stage of multiplication. This initially done where there is no regrouping. 321 x 2 = 642

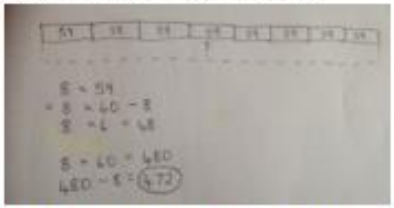


It is important at this stage that they always multiply the ones first.

The corresponding long multiplication is modelled alongside

x	300	20	7
4	1200	80	28

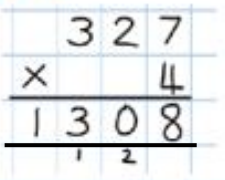
The grid method my be used to show how this relates to a formal written method.



Bar modelling and number lines can support learners when solving problems with multiplication alongside the formal written methods.

```
  327
x   4
-----
   28
   80
 1200
-----
 1308
```

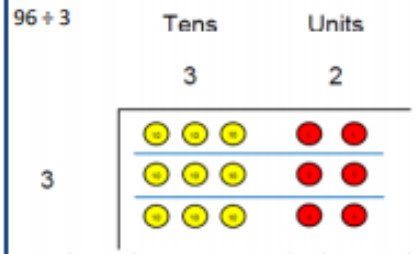
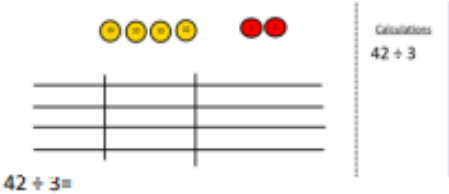
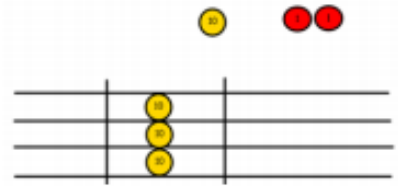
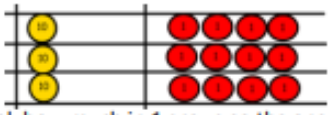
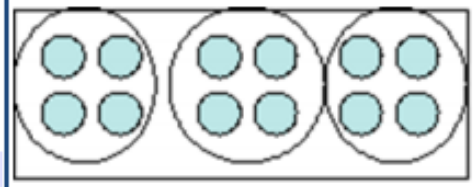
Then move to the **formal written method** for multiplication .



Where the product for the column is larger than 9, regroup (carry) to the left column (below the 'big equals').

Year 4 Calculation Policy

Division

Objective & Strategy	Concrete	Pictorial	Abstract
Divide at least 3 digit numbers by 1 digit. Short Division	96 ÷ 3  Use place value counters to divide using the bus stop method alongside  42 ÷ 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.  We look how much in 1 group so the answer is 14.	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.	h t o 0 4 1 R1 4) 1 6 5 4 does not go into 1 (hundred), so combine the 1 hundred with the 6 tens (160). 4 goes into 16 four times. 4 goes into 5 once, leaving a remainder of 1. th h t o 0 4 0 0 R7 8) 3 2 0 7 8 does not go into 3 (thousand), so combine the 3 with the 2 (hundreds) to make 3200. 8 goes into 32 four times (3200/8 = 400) 8 goes into 0 zero times (tens) 8 goes into 7 zero times and leaves a remainder of 7. 0 6 6 3 r 5 8) 5 5 3 5 0 2 9