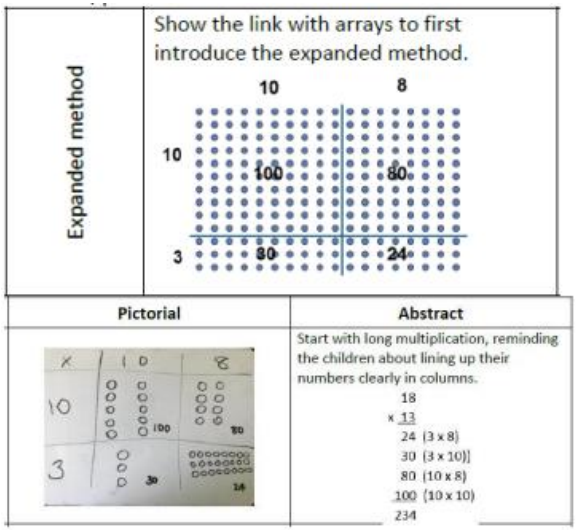
Year 5 and 6 Multiplication	
Year 5	Year 6
Mental strategies	
Children should continue to count regularly, on and back, now including steps of powers of 10. Multiply by 10, 100, 1000, including decimals The number line should continue to be used as an important image to support thinking, and the use of informal jottings should be encouraged. They should be encouraged to choose from a range of strategies to solve problems mentally: - Partitioning using x10, x20 etc - Doubling to solve x2, x4, x8 - Recall of times tables - Use of commutativity of multiplication If children know the times table facts to 12 x 12. Can they use this to recite other times tables (e.g. the 13 times tables or the 24 times table)	Consolidate previous years. Children should experiment with order of operations, investigating the effect of positioning the brackets in different places, e.g. 20 – 5 x 3 = 5; (20 – 5) x 3 = 45 They should be encouraged to choose from a range of strategies to solve problems mentally: - Partitioning using x10, x20 etc - Doubling to solve x2, x4, x8 - Recall of times tables - Use of commutativity of multiplication If children know the times table facts to 12 x 12. Can they use this to recite other times tables (e.g. the 13 times tables or the 24 times table)

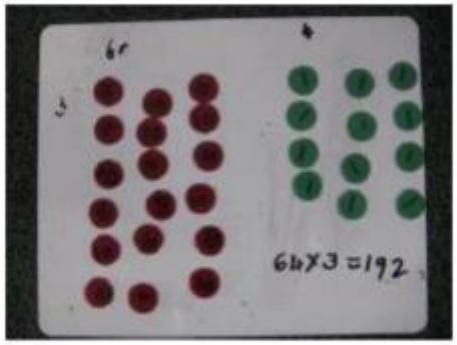
Written methods	
ThHTU x TU and HTU x TU and including decimals. Concrete, pictorial abstract:  TU x TU 78 x 42 16 (2 x 8) 140 (2 x 70) 320 (40 x 8) +2800 (40 x 70) 3276	Start with long multiplication, reminding the children about lining up their numbers clearly in columns.  18 x 13 24 (3 x 8) 30 (3 x 10)) 80 (10 x 8) 100 (10 x 10) 234 This moves to the more compact method. 1342 x 18 13420 10736 24156

Compact (long)

```
  78
 x42
 156
 1
+3120
 3276
```

Compact method

Children can continue to be supported by place value counters at the stage of multiplication.



It is important at this stage that they always multiply the ones first and note down their answer followed by the tens which they note below.

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