Written method for Multiplication

3A   Grid Method

4C Informal methods. TU x U

Introductory method leading on from arrays and partitioning of tens and units.
- Work out products such as 70 x 5, 700 x 5 using related facts.

4C   Standard written methods TU x U or do we do -

```
              23                              23
     x         7              x                7
(20x7)       140                             161
 (3x7)        21
             161
```

4B   Informal and standard written methods HTU x U

Grid method and standard written method   OR

```
              346                             346
     x          7              x                7
(300 x 7)    2100                            2422
(40 x 7)      280
(6 x 7)        42
             2422
```

Next step is TU x TU

Grid method using tens first   Written methods

```
                          72        OR                72
              x           38              x           38
72 x 30     2160                                     576
72 x 8       576                                    2160
            2736                                    2736
```

4A   Informal and standard written methods HTU x TU

Grid method   Written methods

```
                         352                         352
              x           27              x           27
352 x 20    7040                                    2464
352 x 7     2464                                    7040
            9504                                    9504
```

Include decimals.

```
                            35.2
              x              27
35.2 x 20                   704.0
35.2 x 7                    246.4
                            950.4
```

Also use chinese diagonal method for those who understand place value and principles of multiplication and can cope with the format and when have understood the above methods first.

CONSISTENT PRINCIPLES:

Set numbers in vertical layout.
Multiplication symbol to be placed on left of calculation.
Careful attention used to make sure the correct placement of each digit in relation to place value.
Work from right to left - start with units column.
'Carries' to be recorded below the answer box in correct place value column.
Language to refer to value of digit not just its number ie 300 not just 3
Encourage crossing out of numbers that have been carried when they have been added in,