# 21 Number Facts

The principles behind this multiplication scheme are as follows:

Children focus first on their 10 x 10 multiplication facts.

Children understand that knowing one multiplication fact means that they will know the others. For instance, knowing that 3 x 7 = 21 means they know that 7 x 3 = 21, 21 ÷ 7 = 3 and 21 ÷ 3 = 7.

Children only need to try and remember the number facts with the smallest number first. For instance, they only need to recall that 6 x 8 = 48. If asked to recall 8 x 6, they reverse the numbers so that the smallest number is first and therefore recall that 6 x 8 = 48 so know that 8 x 6 = 48.

It is assumed that children know fluently their 1, 2, 5 and 10 times tables. These (together with the 3s) are an absolute requirement by the end of Year 2.

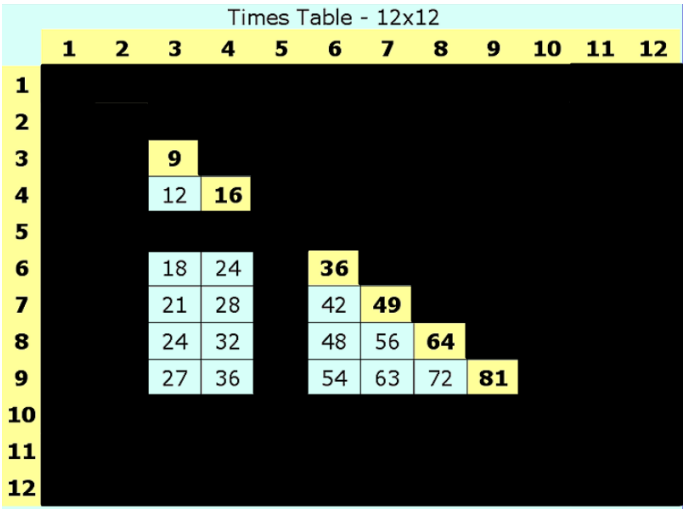
When all of the above is taken into account, the number facts to be embedded fluently are a lot less daunting to learn.

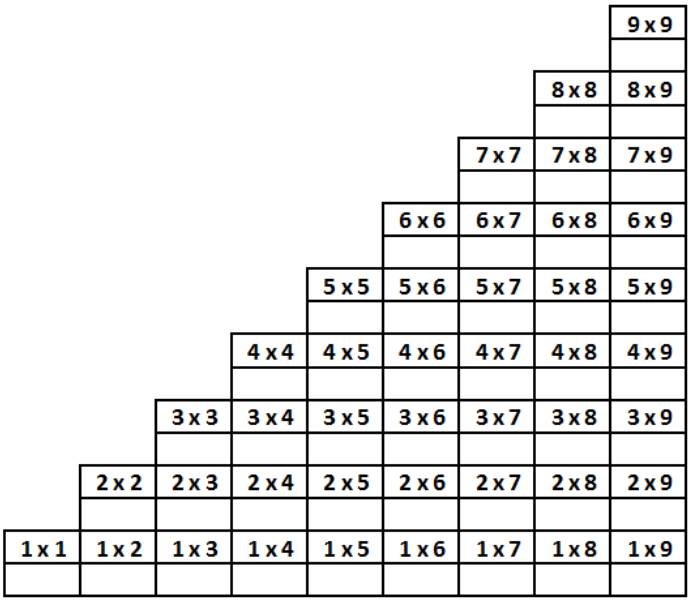
From this:

Times Table - 12x12

| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1** | **1** | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **2** | 2 | **4** | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| **3** | 3 | 6 | **9** | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| **4** | 4 | 8 | 12 | **16** | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| **5** | 5 | 10 | 15 | 20 | **25** | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| **6** | 6 | 12 | 18 | 24 | 30 | **36** | 42 | 48 | 54 | 60 | 66 | 72 |
| **7** | 7 | 14 | 21 | 28 | 35 | 42 | **49** | 56 | 63 | 70 | 77 | 84 |
| **8** | 8 | 16 | 24 | 32 | 40 | 48 | 56 | **64** | 72 | 80 | 88 | 96 |
| **9** | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | **81** | 90 | 99 | 108 |
| **10** | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | **100** | 110 | 120 |
| **11** | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | **121** | 132 |
| **12** | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | **144** |

To this:




In order to practise these facts, children complete the following chart every day at school. This chart is available to print as a PDF from this class page so children can practise at home. It is not a "race" to finish it as quickly as possible. Children should be encouraged to "say in their heads" the number facts they are completing so that this learning is embedded. For instance, "7 x 8 = 56", rather than simply writing an answer. Children also need to understand the additive principle. For instance, if 6 x 6 = 36, then 6 x 7 = 6 more = 42 etc.