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|  | **Using Number Facts** | **Doubling and Halving** | **Grouping** | **Place Value** | **Written Calculation** |
| Year 1 | **Counting in steps*** Begin to count in 2s, 5s and 10s

* Begin to say what three 5s are by counting in 5s, or what four 2s are by counting in 2s, etc.
 | **Doubling and Halving*** Double numbers to 10 **(1M.1)**

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| ***Year 2*** | **Counting in steps*** Count in 2s, 5s and 10s **(2M.1)**
* Begin to count in 3s **(2M.2)**
 | **Doubling and Halving*** Double numbers up to 20 **(2M.3)**
* Begin to double multiples 10 **(2M.3)**
 | **Grouping** * Begin to understand that multiplication is repeated addition and to use arrays e.g. *3 × 4 is three rows of 4 dots* **(2M.4)**
* Begin to learn the ×2, ×3, ×5 and ×10 tables, seeing these as ‘lots of’ e.g. *5 lots of 2, 6 lots of 2, 7 lots of 2*
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| ***Year 3*** | **Number Facts*** Know by heart all the multiplication facts in the ×2, ×3, ×4, ×5, ×8 and ×10 tables **(3M.1)**
 | **Doubling and Halving*** Double numbers up to 50 **(3M.5)**
 | **Grouping** * Partition teen numbers to multiply by a 1-digit number e.g. *3 × 14 as 3 × 10 and 3 × 4* **(3M.6)**
* Recognise that multiplication is commutative **(3M.2)**
 | **Place Value*** Multiply whole numbers by 10 and 100 **(3M.3)**
* Use related facts to multiply multiples of 10 e.g. 2x3=6 so 2x30=60 **(3M.4)**
 | **Grid method*** Use partitioning (grid multiplication) to multiply 2-digit and 3-digit numbers by ‘friendly’ 1-digit numbers **(3M.7)**

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| ***Year 4*** | **Number Facts*** Know by heart all the multiplication facts up to 12 × 12 **(4M.1)**
* Use understanding of place value and number facts in mental multiplication e.g. *36 × 5 is half of 36 × 10* **(4M.4)**
 | **Doubling and Halving*** Find doubles to double 100 and beyond using partitioning **(4M.6)**

* Begin to double amounts of money e.g. *£35·60 doubled is £71·20*
 | **Grouping** * Partition 2-digit numbers to multiply by a 1-digit number mentally e.g. *4 × 24 as 4 × 20 and 4 × 4* **(4M.7)**

* Multiply near multiples by rounding e.g. *33 × 19 as (33 × 20) – 33* ***(*4M.5)**
 | **Place Value*** Multiply whole numbers and 1-place decimals by 10, 100, 1000 **(4M.2)**
* Multiply multiples of 10, 100 and 1000 by 1-digit numbers e.g. *300 × 6, 4000 × 8*

**(4M.3)** | **Grid method*** Use a grid method to multiply a 3 digit number by a 1 digit number **(4M.8)**

**Ladder Method** * Use a vertical written method to multiply a 1-digit number by a 3-digit number (ladder method) **(4M.9)**

**Grid method*** Use an efficient written method to multiply a 2-digit number by a number between 10 and 20 by partitioning (grid method) **(4M.10)**

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| ***Year 5*** | **Using Number Facts*** Know by heart all the multiplication facts up to 12 × 12 **(4M.1)**
* Use knowledge of factors and multiples in multiplication e.g. *43 × 6 is double 43 × 3* e.g. *28 × 50 is 1/­­2 of 28 × 100 = 1400* **(5M.2)**
 | **Doubling and Halving*** Double amounts of money by partitioning e.g. *£37·45 doubled is £37 doubled (£74) plus 45p doubled (90p) giving a total of £74·90* **(5M.4)**
 | **Grouping*** Use knowledge of place value and rounding in mental multiplication e.g. *67 × 199 as 67 × 200 – 67* **(5M.3)**
* Partition 2-digit numbers, including decimals, to multiply by a 1-digit number mentally e.g. *6 × 27 as 6 × 20 (120) plus 6 × 7 (42)*  e.g. *6·3 × 7 as 6 × 7 (42) plus 0·3 × 7 (2·1)* **(5M.5)**
 | **Place Value*** Multiply whole numbers and 1- and 2-place decimals by 10, 100, 1000, 10 000
* Use related facts to multiply 1 place decimals (e.g. 7x6=42, so 7x0.6=4.2) **(5M.1)**
 | **Short Multiplication*** Use short multiplication to multiply a 1-digit number by a number with up to 4 digits **(5M.6)**

**Long Multiplication*** Use long multiplication to multiply 3-digit and 4-digit numbers by a number between 11 and 20 **(5M.7)**
* Choose the most efficient method in any given situation
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| ***Year 6*** | **Using Number Facts*** Use doubling and halving as mental multiplication strategies, including to multiply by 2, 4, 8, 5, 20, 50 and 25e.g. *28 × 25 is a quarter of 28 × 100 = 700* **(6M.2)**
 | **Doubling and Halving*** Double decimal numbers with up to 2 places using partitioning e.g. *36·73 doubled is double 36 (72) plus double0·73 (1·46)*
 | **Grouping*** Multiply 1- and 2-place decimals by numbers up to and including 10 using place value and partitioning e.g. *3·6 × 4 is 12 + 2·4*  e.g. *2·53 × 3 is 6 + 1·5 + 0·09* **(6M.3)**
* Use rounding in mental multiplication e.g. *34 × 19 as (34 × 20) – 34* **(6M.4)**
 | **Place Value*** Multiply whole numbers and decimals with up to 3 places by 10, 100 or 1000 e.g. *234 × 1000 = 234* *000*  e.g. *0·23 × 1000 = 230*
* Use place value and number facts in mental multiplication e.g. *4000 × 6 = 24* *000* e.g. *0·03 × 6 = 0·18* **(6M.1)**
 | **Short Multiplication*** Use short multiplication to multiply a 1-digit number by a number with up to 4 d

**Long Multiplication*** Use long multiplication to multiply a 2-digit number by a number with up to 4 digits **(6M.5)**

* Use short multiplication to multiply a 1-digit number by a number with 1 or 2 decimal places, including amounts of money
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