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| **Addition** | **Using number facts*** Know by heart/quickly derive number bonds to 100 and to £1 **(4A.1)**
* Add to the next 100, £1 and whole number e.g. *234 + 66 = 300* e.g. *3·4 + 0·6 = 4* **(4A.2)**
 | **Mental Calculation*** Perform place-value additions without a struggle e.g. *300 + 8 + 50 + 4000 = 4358*
* Add any two 2-digit numbers by partitioning or counting on
* Add £1, 10p, 1p to amounts of money
* Add multiples and near multiples of 10, 100 and 1000, £1 and 10p **(4A.3)**
* Use place value and number facts to add 1-, 2-, 3- and 4-digit numbers where a mental calculation is appropriate e.g. *4004 + 156 by knowing that 6 + 4 = 10 and that 4004 + 150 = 4154 so the total is 4160* **(4A.4)**
 | **Efficient Written Addition*** Column addition for 3-digit and 4-digit numbers **(4A.5)**

*ColumnAddition*e.g. |

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| **Subtraction** | **Using Number Facts*** Know by heart/quickly derive number bonds to 100 or £1 (e.g. 100 – 64 = 36) **(4S1)**
 | **Place Value*** Perform place-value subtractions without a struggle e.g. *4736 – 706 = 4030*
* Subtract multiples of 0·1
* Subtract multiples and near multiples of 10, 100, 1000, £1 and 10p **(4S3)**

**Taking Away (Count back)*** Takeaway any two 2-digit numbers mentally **(4S2)**
* Subtract £1, 10p, 1p from amounts of money

**Counting On (FROG)*** Subtract by counting on mentally e.g. *503 – 368 is done by adding 368 + 2 + 30 + 100 + 3 (so we added 135)* **(4S.4)**
* Find change from £10, £20 and £50 **(4S.5)**
 | **Expanded Written Subtraction*** Use expanded column subtraction for 3 digit numbers without decomposing **(4S.6)**
* Use expanded column subtraction for 3 digit numbers with decomposition **(4S.8)**

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| **Multiplication** | **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)**  |
| **Division** | **Using Number Facts** * Know by heart all the division facts up to 144 ÷ 12 **(4D.1)**
* Use place value and number facts in mental division e.g. *84 ÷ 4 is half of 42*
* Use place value and number facts in mental division e.g. *245 ÷ 20 is half of 245 ÷ 10*
 | **Place Value** * Divide whole numbers by 10, 100, to give whole number answers or answers with 1 decimal place **(4D.2)**
* Divide multiples of 100 by 1-digit numbers using division facts e.g. *3200 ÷ 8 = 400* **(4D.3)**
 | **Doubling and Halving** * Find halves of even numbers to 200 and beyond using partitioning **(4D.4)**
* Begin to halve amounts of money e.g. *half of £52·40 is £26·20*
 | **Grouping** * Divide larger numbers mentally by subtracting the 10th or 20th multiple as appropriate e.g. *156 ÷ 6 is 20 + 6 as 20 ×* *6 = 120 and 6 ×* *6 = 36 Give* remainders as whole numbers **(4D.5)**
* Use a written method to divide a 2-digit or a 3-digit number by a 1-digit number **(4D.6)**

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