|  |  |  |  |
| --- | --- | --- | --- |
| **ADDITION** | **Using number facts*** Know number bonds to 1 and to the next whole number **(5A.1)**
* Add to the next 10 from a decimal number

e.g. *13·6 + 6·4 = 20* **(5A.2)*** Use place value and number facts to add two or more ‘friendly’ numbers, including money and decimals e.g. *3 + 8 + 6 + 4 + 7* e.g. *0·6 + 0·7 + 0·4*  e.g. *2056 + 44*
 | * Add 1- or 2-digit multiples of 10, 100, 1000, 10 000 and 100 000 e.g. *8000 + 7000* e.g. *600* *000 + 700* *000*
* Add near multiples of 10, 100, 1000, 10 000 and 100 000 to other numbers e.g. *82* *472 + 30* *004*
* Add decimal numbers which are near multiples of 1 or 10, including money e.g. *6·34 + 1·99* e.g. *£34·59 + £19·95* **(5A.3)**
* Use place value e.g. *2056 + 44*
* Add numbers with 2 significant digits only, using mental strategies e.g. *3·4 + 4·8* e.g. *23* *000 + 47* *000*
 | **Efficient Written Addition*** Use column addition to add a mix of whole numbers and decimals with different numbers of decimal places **(5A.4)**
* Choose the most efficient method in any given situation
 |

|  |  |  |  |
| --- | --- | --- | --- |
| **SUBTRACTION** | **Using Number Facts*** Know by heart/ quickly derive number bonds to 1 and to the next whole number e.g. 10 – 5.6 =
* Use related facts to subtract 1- or 2-digit multiples of 10, 100, 1000, 10 000 and 100 000e.g. *8000 – 3000*
 | * Subtract numbers with 2 significant digits only, using mental strategies e.g. *6·2 – 4·5* e.g. *72* *000 – 47* *000*

**Place Value*** Subtract 1- or 2-digit near multiples of 10, 100, 1000, 10 000 and 100 000 from other numbers e.g. *82* *472 – 30* *004*
* Subtract decimal numbers which are near multiples of 1 or 10, including money e.g. *6·34 – 1·99* e.g. *£34·59 – £19·95* **(5S.1)**

**Counting On (FROG)** * Use counting up subtraction, with knowledge of number bonds to 10, 100 or £1, as a strategy to perform mental subtraction e.g. *£10 – £3·45* e.g. *1000 – 782*
 | **Efficient Written Subtraction*** Use efficient column subtraction to subtract numbers with up to 5 digits **(5S.3)**
* Use column subtraction to subtract a mix of whole numbers and decimals with different numbers of decimal places **(5S.4)**
 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **MULTIPLICATION** | **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)** **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)**
 | **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)**
 | **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
 |
| **DIVISION** | **Using Number Facts** * Know by heart all the division facts up to 144 ÷ 12 (4D.1)
* Use doubling and halving as mental division strategies to divide by 2, 4, 8, 5, 20 and 25 e.g. 34 ÷ 5 is (34 ÷ 10) × 2; 628 ÷ 8 is halved three times: 314, 157, 78·5
 | **Place Value** * Divide whole numbers by 10, 100, 1000, 10 000 to give whole number answers or answers with 1, 2 or 3 decimal places (5D.1)
 | **Doubling and Halving** * Halve amounts of money by partitioning e.g. 1/2 of £75·40 = 1/2 of £75 (£37·50) plus half of 40p (20p) which is £37·70 (5D.2)

 | **Grouping** * Divide larger numbers mentally by subtracting the 10th or 100th multiple as appropriate e.g. 96 ÷ 6 is 10 + 6, as 10 × 6 = 60 and 6 × 6 = 36 e.g. 312 ÷ 3 is 100 + 4 as 100 × 3 = 300 and 4 × 3 = 12 (5D.3)

**Sharing*** Give remainders as whole numbers or as fractions (5D.4)
* Reduce fractions to their simplest form (5D.4)
 | **Short Division*** Use short division to divide a number with up to 4 digits by a number ≤ 12 (5D.5)

* Choose the most efficient method in any given situation
 |