A Parent's Guide to Maths for Year 5

Key mental maths skills

Addition strategies

- Know numbers bonds to 1 and to the next whole number (e.g. 0.4 + 0.6 = 1 and 2.3 + 0.7 = 3)
- Add to the next 10 from a decimal number (e.g. 13.6 + 6.4 = 20)
- Add numbers with two significant digits only, using mental strategies (e.g. 3.4 + 4.8 or 23,000 + 47,000)
- Add multiples of 10, 100, 1000, 10,000 and 100,000 (e.g. 8000 + 7000 or 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 or £34.59 + £19.95)
- Use place value and number facts to add two or more friendly numbers including money and decimals (e.g. 3 + 8 + 6 + 4 + 7, 0.6 + 0.7 + 0.4, or 2,056 + 44)

Subtraction strategies

- Subtract numbers with two significant digits only, using mental strategies (e.g. 6.2 – 4.5 or 72,000 – 47,000)
- Subtract multiples of 100, 1000, 10,000 and 100,000 (e.g. 8000 – 3000 or 600,000 – 200,000)
- Subtract near multiples of 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 or £34·59 – £19·95)
- Use counting up to subtract, with knowledge of number bonds to 10/100 or £1, as a strategy to perform mental subtraction (e.g. £10 - £3.45 or 1000 – 782]
- Recognise fraction bonds to 1 and to the next whole number (e.g. $1\ ^{2}/_{5} + {}^{3}/_{5} = 2$)

Multiplication strategies

- Know by heart all the multiplication facts up to 12 x 12
- Multiply whole numbers and one-and two-place decimals by 10, 100, 1000, 10,000
- Use knowledge of factors and multiples in multiplication (e.g. 43 x 6 is double 43 x 3, and 28 x 50 is ½ of 28 x 100 = 1400)
- Use knowledge of place value and rounding in mental multiplication (e.g. 67 x 199 as 67 x 200 – 67)
- Use doubling and halving as a strategy in mental multiplication (e.g. 58 x 5 = half of 58 x 10, and 34 x 4 is 34 doubled twice)
- Partition 2-digit numbers, including decimals, to multiply by a single-digit number mentally (e.g. 6 x 27 as 6 x 20 (120) plus 6 x 7 (42) making 162 or 6.3 x 7 as 6 x 7 plus 0.3 x 7)
- Double amounts of money by partitioning (e.g. £37.45 doubled = £37 doubled (£74) plus 45p doubled (90p) £74.90)

Division strategies

- Know by heart all the division facts up to 144 ÷ 12
- Divide whole numbers by 10, 100, 1000, 10,000 to give whole number answers or answers with 1, 2 or 3 decimal places
- Use doubling and halving as mental division strategies (e.g. 34 ÷ 5 is (34 ÷ 10) x 2)
- Use knowledge of multiples and factors, also tests for divisibility ,in mental division (e.g. 246 ÷ 6 is 123 ÷ 3 and we know that 525 divides by 25 and by 3)
- Halve amounts of money by partitioning (e.g. half of £75.40 = half of £75 (37.50) plus half of 40p (20p) which is £37.70)
- 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; 312 ÷ 3 is 100 + 4 as 100 x 3 = 300 and 4 x 3 = 12)
- Reduce fractions to their simplest form by identifying what the highest number is that they are both divisible by e.g.

$\frac{12}{16} \div 4 = \frac{3}{4}$ $\quad\quad$ $\frac{24}{30} \div 6 = \frac{4}{5}$