

# Stage 6 – Advanced Additive

## Number Knowledge

- I can read write and order any number up to 1 000 000.
- I can read decimals to 3dp.
- I can say the number 1, 10, 100 and 1000 more or less.
- I know groupings of 10s and 100s in a 4-digit number.
- I can round whole numbers to the nearest 10, 100, 1000.
- I can round decimals to the nearest whole number.
- I can continue number patterns and sequences.

I can pick the best strategy to solve multi-digit addition and subtraction problems mentally.

## Addition and Subtraction

I can choose an appropriate strategy from a broad range of strategies:

- Rounding and compensating, e.g.  $398 + 612 \Rightarrow 400 + 610 = 1010$   
or  $117 - 59 \Rightarrow 117 - 60 + 1$
- Reversibility, e.g.  $117 - 59 \Leftrightarrow 59 + ? = 117$
- Equal additions e.g.  $117 - 59 \Rightarrow 118 - 60$
- Place value partitioning, e.g.  $324 + 39 = 300 + 50 + 13$
- Tidy numbers, e.g.  $324 + 39 \Rightarrow 324 + 6 + 30 + 3$



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I can recall addition and subtraction facts to 20.

I know groupings with 1000.



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## Multiplication and Division

I can use known facts and mental strategies to solve multiplication and division problems:

- Rounding and compensating
- Reversibility, e.g.  $72 \div 9 = 9 \times ? = 72$
- Doubling, e.g.  $8 \times 3 \Rightarrow$  double 3 is 6, double 6 is 12, double 12 is 24
- Halving, e.g.  $48 \div 4 \Rightarrow$  half of 48 is 24, half of 24 is 12
- Place value, e.g.  $23 \times 5 = (20 \times 5) + (3 \times 5)$
- Doubling and halving, e.g.  $16 \times 4 \Rightarrow 8 \times 8$

I can mentally solve multiplication and division problems.

I understand how to work with parts of numbers



## Ratio and Proportions

I can use repeated halving and known facts to solve problems with fractions,

e.g.  $\frac{3}{4}$  of 24  $\Rightarrow$   $\frac{1}{2}$  is 12,  $\frac{1}{4}$  is 6 so  $\frac{3}{4}$  is  $6 + 12 = 18$ .

I can simplify improper fractions, e.g.  $\frac{8}{3}$  is  $2\frac{2}{3}$ .

I can solve simple ratio and rate problems by using known facts,

e.g. if we know that 1:5 then ?:15 must be 3:15.

I can count forwards and backwards in  $\frac{1}{2}$  s,  $\frac{1}{3}$  s,  $\frac{1}{5}$  s,  $\frac{1}{10}$  s.

I can read the symbols for any fraction.

I can order unit fractions for halves, thirds, quarters, fifths and tenths.



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