

Multiplication

The grid method is used as it helps the children to visualise and understand the calculation better.

M5: Grid Method
Short Multiplication

$$15 \times 5 = 75$$

x	10	5
5	50	25

$$50 + 25 = 75$$

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The expanded method partitions the tens and units.

(M6: Expanded Column)
Additional

$$\begin{array}{r} \begin{array}{c} 10 \quad 1 \\ 15 \\ \times 5 \\ \hline 25 \end{array} \quad (5 \times 5) \\ \begin{array}{r} 50 \\ \hline 75 \end{array} \quad (5 \times 10) \end{array}$$

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(M7: Column Multiplication)
Additional

$$\begin{array}{r} \begin{array}{c} 10 \quad 1 \\ 15 \\ \times 5 \\ \hline 75 \\ 2 \end{array} \end{array}$$

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Carry below the line

Division

Continue to give children practical images for division by grouping.

D6: Grouping Grid

4	4	4	4	4
4				3

"How many times can I fit (groups of) 4 into 27?"
Answer: 6r3

$$27 \div 4 = 6r3$$

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Using the number line to jump in 'chunks'.

D7: Chunking Jump

4 x 10 4 x 8

+40 +32

0 40 72

"How many 4s in 72?"
Answer: 18

$$72 \div 4 = 18$$

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(D11: Chunking)
Additional

$$\begin{array}{r} 18 \\ 4 \overline{)72} \\ - 40 \quad (4 \times 10) \\ \hline 32 \\ - 32 \quad (4 \times 8) \\ \hline 0 \end{array}$$

$72 \div 4 = 18$

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Fibbersley Park
Academy

**YEAR 3
WRITTEN
METHODS IN
MATHS**

A guide for Parents/Carers



Year 3 expectations

Compare & order numbers up to 1000.

- Read & write all numbers to 1000 in digits and words.
- Find 10 or 100 more/less than a given number.
- Count from 0 in multiples of 4, 8, 50 and 100.
- Recall & use multiplication & division facts for 3, 4, 8 tables.
- Recognise place value of any 3-digit number.
- Add and subtract:
 - 3-digit numbers and ones
 - 3-digit numbers and tens
 - 3-digit numbers and hundreds
- Add and subtract:
 - Numbers with up to 3-digits using written columnar method.
- Estimate and use inverse to check.
- Multiply:
 - 2-digit by 1-digit
- Count up/down in tenths.
- Compare and order fractions with same denominator.
- Add and subtract fractions with same denominator with whole.
- Tell time using 12 and 24 hour clocks and using Roman numerals.
- Tell time to nearest minute.
- Know number of days in each month and number of seconds in a minute.

Addition

Ensure that mental strategies are embedded first.

A5c: Partition Jot

$$687 + 248 = 935$$

$$800 + 120 + 15$$

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Move onto written methods

(A6: Expanded Column)

$$\begin{array}{r} \text{100} \quad \text{10} \quad \text{1} \\ 57 \\ + 25 \\ \hline 12 \\ 70 \\ \hline 82 \end{array}$$

(A6: Expanded Column)

$$\begin{array}{r} \text{100} \quad \text{10} \quad \text{1} \\ 86 \\ + 48 \\ \hline 14 \\ 120 \\ \hline 134 \end{array}$$

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'Carry' tens and hundreds

A7: Column Addition

$$\begin{array}{r} \text{100} \quad \text{10} \quad \text{1} \\ 687 \\ + 248 \\ \hline 935 \\ \hline \text{1} \quad \text{1} \end{array}$$

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Subtraction

Mental strategies

S8: Triple Jump!

$$75 - 37 = 38$$

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Expanded column

(S10: Expanded Column)

Additional Subtraction

$$87 - 23 = 64$$

$$\begin{array}{r} 80 \quad 7 \\ 20 \quad 3 \\ \hline 60 \quad 4 \end{array}$$

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Subtraction

S10: Expanded Column

Subtraction (100, 10, 1s)

$$605 - 328 = 277$$

$$\begin{array}{r} 500 \quad 90 \quad 1 \\ \cancel{600} \quad \cancel{100} \quad 1 \\ - 300 \quad 20 \quad 6 \\ \hline 300 \quad 70 \quad 7 \end{array}$$

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