Church of England Primary Academy a member of CDARI

## Year 3 Fluency

## Rapid Recall

- Addition and subtraction of multiples of 10 where the answer is between 0 and 100 (e.g. $70+30=100,20+40=60$ )
- Double and halves of multiples of 10 to 100 (e.g. double $60=120$ )
- Multiplying two-digit numbers by 10. (e.g. $24 \times 10=240$ )

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $1 \times 1$ | 2×1 | $3 \times 1$ | 4×1 | $5 \times 1$ | $6 \times 1$ | $7 \times 1$ | $8 \times 1$ | $9 \times 1$ | 10x1 |  |  |
| 2 | $1 \times 2$ | 2×2 | $3 \times 2$ | $4 \times 2$ | $5 \times 2$ | 6×2 | $7 \times 2$ | $8 \times 2$ | $9 \times 2$ | 10x2 |  |  |
| 3 | 1×3 | 2x3 | $3 \times 3$ | $4 \times 3$ | $5 \times 3$ | $6 \times 3$ | $7 \times 3$ | $8 \times 3$ | $9 \times 3$ | 10x3 |  |  |
| 4 | $1 \times 4$ | $2 \times 4$ | $3 \times 4$ | $4 \times 4$ | $5 \times 4$ | $6 \times 4$ |  | $8 \times 4$ |  | $10 \times 4$ |  |  |
| 5 | $1 \times 5$ | $2 \times 5$ | $3 \times 5$ | $4 \times 5$ | $5 \times 5$ | $6 \times 5$ | $7 \times 5$ | $8 \times 5$ | $9 \times 5$ | $10 \times 5$ |  |  |
| 6 | $1 \times 6$ | $2 \times 6$ | $3 \times 6$ | 4×6 | $5 \times 6$ | 6x6 |  | $8 \times 6$ |  | 10x6 |  |  |
| 7 | $1 \times 7$ | $2 \times 7$ | $3 \times 7$ | $4 \times 7$ | $5 \times 7$ | $6 \times 7$ |  | $8 \times 7$ |  | $10 \times 7$ |  |  |
| 8 | 1×8 | 2x8 | $3 \times 8$ | $4 \times 8$ | $5 \times 8$ | 6x8 |  | $8 \times 8$ |  | $10 \times 8$ |  |  |
| 9 | 1×9 | 2x9 | $3 \times 9$ | $4 \times 9$ | $5 \times 9$ | $6 \times 9$ |  | $8 \times 9$ |  | 10x9 |  |  |
| 10 | $1 \times 10$ | $\mathbf{2 \times 1 0}$ | $3 \times 10$ | $4 \times 10$ | $5 \times 10$ | $6 \times 10$ | $7 \times 10$ | $8 \times 10$ | $9 \times 10$ | $10 \times 10$ |  |  |
| 11 | $1 \times 11$ | $2 \times 11$ | $3 \times 11$ | 4×11 | $5 \times 11$ | 6×11 |  | $8 \times 11$ |  | $10 \times 11$ |  |  |
| 12 | $1 \times 12$ | $2 \times 12$ | $3 \times 12$ | $4 \times 12$ | $5 \times 12$ | $6 \times 12$ |  | $8 \times 12$ |  | $10 \times 12$ |  |  |

St Barnabas
Church of England Primary Academy
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Mental Calculations (Jottings may be needed)

| Addition and Subtraction Mental Calculation Skills (Working mentally with jottings) | Methods or Strategies | Multiplication and Division Mental Calculation Skills (Working mentally with jottings) | Methods or Strategies |
| :---: | :---: | :---: | :---: |
| - Add and subtract a group of small numbers <br> e.g. 4-3+2 <br> - Add or subtract a two - digit number to or from a multiple of 10 $\text { e.g. } 60+28,72-40$ <br> Add and subtract two - digit numbers that don't bridge over a multiple of 10 . $\text { e.g. } 53+42,78-54$ <br> - Add near doubles of numbers within 50 . $\text { e.g. } 18+17,44+45$ <br> - Count on and back in minutes and hours through 60 (analogue). | - Identify pairs totalling ten <br> - Count on or back in tens from any number. <br> - Partition: Add and subtract tens and ones separately and recombine. <br> - Partition: Count on in tens and ones to find the total. <br> - Partition: Count on or back in tens and ones to find the difference. <br> - Double and adjust <br> E.g. $18+17=18+18-1$ | - Double any multiple of 5 up to 100 <br> e.g. double 35 <br> - Halve any multiple of 10 up to 200. <br> e.g. halve 170 <br> - Multiply one-digit and two-digit numbers by 10 and 100 . <br> e.g. $7 \times 10,7 \times 100,46 \times$ $10,46 \times 100$ <br> - Find unit fractions of quantities. This should include: Halves, thirds, quarters, fifths and tenths | - Partition: double the tens and ones separately and then recombine <br> - Halve the hundreds, tens and ones separately and recombine. <br> - Recognise that finding a unit fraction is the equivalent of dividing by the denominator. <br> - Recognise that halving and doubling are inverse operations. <br> - Use knowledge of division facts. <br> - Recognise that when a number is multiplied by 10 or 100 the digits move one or two places to the left and 0 is used as a placeholder. |

