


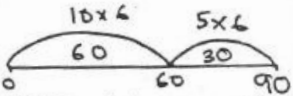
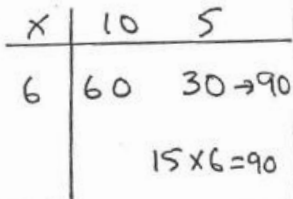
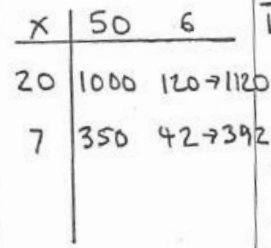
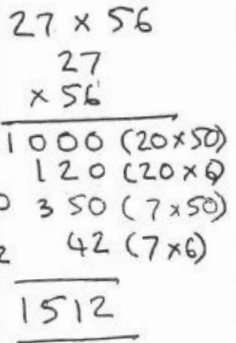
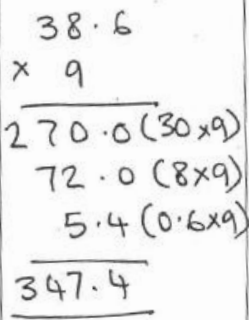
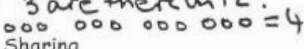
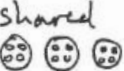
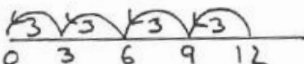
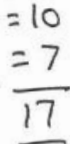
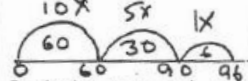
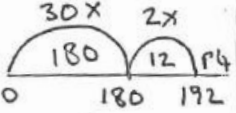


Burford School: Maths Progression Chart

| | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------------------|--|--|---|--|---|--|--|
| Addition: | <p>Practical activities</p> <p>Finding one more than a number from 1 to 10</p> <p>Introducing vocabulary of addition</p> | <p>Counting on using a number line</p> <p>Beginning to use the + and = signs to record mental calculations</p> <p>Knowing by heart all the number bonds to 10 (eg: 1+9, 2+8)</p> <p>Knowing that addition can be done in any order (eg: 1+2 = 2+1)</p> | <p>Adding three digit numbers mentally</p> <p>Knowing by heart all the number bonds to at least 20</p> <p>Using + and = to record mental calculations</p> <p>Using a number line to make informal jottings:</p> $\begin{array}{c} 24 + 16 \\ +10 \quad +6 \\ \hline 24 \quad 34 \quad 40 \end{array}$ | <p>Using informal pencil and paper methods (jottings)</p> <p>Using number line addition</p> $\begin{array}{c} 36 + 17 = 53 \\ \begin{array}{c} 36 \\ +10 \\ \hline 46 \\ +4 \\ \hline 50 \\ +3 \\ \hline 53 \end{array} \end{array}$ <p>Introducing vertical addition for TU+TU and moving into HTU (most significant digit added first)</p> $\begin{array}{r} 83 + 42 \\ 83 \\ + 42 \\ \hline 120 \end{array} \quad \begin{array}{l} (80+40) \\ 5 \quad (3+2) \\ \hline 125 \end{array}$ <p>Partitioning</p> $\begin{array}{r} 83 + 42 \\ 80 + 40 = 120 \\ 3 + 2 = 5 \\ \hline 125 \end{array}$ | <p>Using number line addition</p> <p>Using vertical addition (least significant digit first)</p> $\begin{array}{r} 368 + 493 \\ 368 \\ + 493 \\ \hline 11 \quad (8+3) \text{U} \\ 150 \quad (60+90) \text{T} \\ 700 \quad (300+) \text{H} \\ \hline \end{array}$ <p>Partitioning</p> $\begin{array}{r} 368 + 493 \\ 8+3 = 11 \\ 60+90 = 150 \\ 400+300 = 700 \\ \hline 861 \end{array}$ | <p>Using number line addition</p> <p>Using vertical addition involving carrying</p> $\begin{array}{r} 368 + 493 \\ 368 \\ + 493 \\ \hline 861 \\ 11 \end{array}$ | <p>Using number line addition</p> <p>Using compact vertical addition involving carrying</p> $\begin{array}{r} 42.86 + 29.48 \\ 42.86 \\ + 29.48 \\ \hline 72.34 \end{array}$ |
| Subtraction: | <p>Practical activities</p> <p>Finding one less than a number from 1 to 10</p> <p>Beginning to relate subtraction to taking away</p> | <p>Counting back on a number line</p> <p>Beginning to use the - and = sign to record mental calculations</p> <p>Knowing by heart all subtraction facts to 10</p> | <p>Knowing all the subtraction facts to 20</p> <p>Using a number line to subtract by counting back</p> $44 - 25 = 19$ $\begin{array}{c} 44 \\ \begin{array}{c} \text{---} 4 \text{---} 10 \text{---} 10 \text{---} \\ \times \end{array} \\ 19 \quad 20 \quad 24 \quad 34 \quad 44 \end{array}$ | <p>Using informal pencil and paper methods (jottings)</p> <p>Using number line subtraction</p> $84 - 56$ <p>"How many do I have to count on from 56 to 84?"</p> $\begin{array}{c} 56 \\ \begin{array}{c} +4 \quad +20 \quad +4 \\ \hline 60 \quad 80 \quad 84 \end{array} \end{array}$ | <p>Using number line subtraction</p> <p>Using vertical subtraction</p> $\begin{array}{r} 563 - 248 \\ 500 + 60 + 3 \\ - 200 + 40 + 8 \\ \hline 300 + 10 + 5 \\ \hline \text{Ans} = 315 \end{array}$ | <p>Using number line subtraction</p> <p>Using vertical subtraction involving decomposition</p> $\begin{array}{r} 647 - 389 \\ 5 \quad 13 \quad 17 \\ 647 \\ - 389 \\ \hline 258 \end{array}$ | <p>Using number line subtraction</p> <p>Using vertical subtraction (including decimals) involving decomposition</p> $\begin{array}{r} 32.04 - 18.13 \\ 2 \quad 1 \quad 10 \\ 32.04 \\ - 18.13 \\ \hline 13.91 \end{array}$ |

ANS = 28

| | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|------------------------|-------------------------------|--|---|---|---|--|---|
| Multiplication: | Practical doubling activities | Knowing by heart doubles to at least 5+5 | Understand multiplication as repeated addition 3×5 $= 3$ lots of 5 $= 5+5+5$  Using arrays: $3 \times 5 = 15$  Knowing by heart the multiplication facts for the 10, 2 and 5 times tables (or Cracking Times Tables) Beginning to use number line multiplication $3 \times 5 = 15$  | Knowing by heart the multiplication facts for the 10, 2, 5, 3, and 4 times tables $15 \times 6 = 90$ Using number line multiplication  Using mental methods using partitioning $15 \times 6 = (10 \times 6) + (5 \times 6)$ Introducing the grid method  | Knowing by heart the multiplication facts up to 10×10 Money problems involving decimals Using the grid method for bigger numbers TUxTU 27×56  $27 \times 56 = 1512$ | Using the grid method Introducing vertical multiplication linked to the grid method, including decimals 27×56  | Using the grid method Consolidating vertical multiplication (see left) 38.6×9  |
| Division: | Practical sharing activities | Separating a given number of objects into equal groups Recording results informally | Understand division as grouping or sharing Grouping $12 \div 3$ "How many groups of 3 are there in 12?"  $= 4$ Sharing $12 \div 3$ "What is 12 shared between 3?"  Introducing number line division $12 \div 3 = 4$  | Using the + and = signs recording horizontally $12 - 3 = 4$ Consolidating number line division $68 \div 4$ $40 \div 4 = 10$ $28 \div 4 = 7$  | Using number line division $96 \div 6 = 16$ "How many 6s are there in 96?"  Beginning to use the 'chunking/repeated subtraction' method $192 \div 8$ 192 $- 80$ (10x8) 112 $- 80$ (10x8) 32 (4x8) 0 ANS = 24 | Using number line division $196 \div 6 = 32 \text{ r } 4$  Using the 'chunking' method $196 \div 6$ 196 $- 180$ (30x6) 16 $- 12$ (2x6) 4 ANS 32 r 4 | Using number line division Using the 'chunking' method Increasing efficiency Expressing remainders as fractions/decimals $196 \div 6$ 196 $- 180$ (30x6) 16 $- 12$ (2x6) 4 ANS = 32 $\frac{4}{6}$ $= 32 \frac{2}{3}$ $= 32.6$ |