

	Addition	Subtraction	Multiplication	Division																						
Yr 4	<p>Expanded recap from Yr 3 including regroup</p> $\begin{array}{r} 67 \\ +24 \\ \hline 11 \end{array} \quad \begin{array}{r} 267 \\ +85 \\ \hline 12 \end{array}$ <p>(7+4) (7+5)</p> $\begin{array}{r} 80 \\ +91 \\ \hline 171 \end{array} \quad \begin{array}{r} 140 \\ +160 \\ \hline 300 \end{array}$ <p>(60+20) (60+80)</p> <p>Moving on to short column addition with regroup. Carry below the line</p> $\begin{array}{r} 625 \\ + 48 \\ \hline 673 \\ 1 \end{array} \quad \begin{array}{r} 763 \\ + 42 \\ \hline 805 \\ 1 \end{array} \quad \begin{array}{r} 367 \\ + 85 \\ \hline 452 \\ 11 \end{array}$ <p>Using similar methods children will: Add several numbers with different numbers of digits Begin to add two or more three-digit sums of money, with or without adjustment from the pence to the pounds Know that the decimal points should line up under each other, particularly when adding or subtracting mixed amounts, e.g. £3.59 + 78p</p> $38 + 86 = 124$ $49 + 73 = 122$ <p>Part whole model</p> <p>$40 + 20 + 2 + 3 = 65$</p>	<p>Counting on from smaller number</p> $102 - 89 = 13$ <p>$1 + 10 + 2 = 13$</p> $132 - 19 = 113$ <p>Regrouping 2 digit subtract 2 digit moving on to 3 digit subtract 2 digit numbers</p> $\begin{array}{r} 94 \\ - 76 \\ \hline 18 \end{array} \quad \begin{array}{r} 754 \\ - 86 \\ \hline 668 \end{array}$ <p>Step 1 $700 + 50 + 4$</p> <p>Step 2 $700 + 40 + 14$ (adjust from T to O)</p> <p>Step 3 $600 + 140 + 14$ (adjust from H to T)</p> <p>This would be recorded by the children as</p> $\begin{array}{r} 700 + 50 + 4 \\ - 600 + 60 + 8 \\ \hline 100 + 10 + 6 = 116 \end{array}$ <p>Children should be able to subtract numbers with different numbers of digits. Use place value headings initially</p>	<p>Informal method</p> <p>Grid method</p> <p>TO x O (short multiplication - multiplication by a single digit)</p> 23×8 <table border="1" style="margin-left: 20px;"> <tr><td>X</td><td>20</td><td>3</td></tr> <tr><td>8</td><td>160</td><td>24</td></tr> </table> <p>Moving on to HTO X O</p> 146×4 <table border="1" style="margin-left: 20px;"> <tr><td>X</td><td>100</td><td>40</td><td>6</td></tr> <tr><td>4</td><td>400</td><td>160</td><td>24</td></tr> </table> <p>Or using X table knowledge</p> $160 \times 4 = 640$ $8 \times 2 = 16$ so $8 \times 20 = 160$ $160 + 160 = 320$ $320 + 320 = 640$ <p>Formal method 2 digit X 1 digit</p> $\begin{array}{r} 23 \\ \times 4 \\ \hline 12 \quad (3 \times 4) \\ 80 \quad (20 \times 4) \\ \hline 92 \end{array}$ <p>Also using what I know cheat sheet...</p> <p>Eg $1 \times 6 = 6$ $2 \times 6 = 12$ $4 \times 6 = 24$ $5 \times 6 = 30$ $8 \times 6 = 48$ $10 \times 6 = 60$</p>	X	20	3	8	160	24	X	100	40	6	4	400	160	24	<p>Discuss repeated subtraction</p> <p>Bar model division</p> $16 \div 4$ <table border="1" style="margin-left: 20px;"> <tr><td colspan="4">16</td></tr> <tr><td>4</td><td>4</td><td>4</td><td>4</td></tr> </table> <p>Then onto the vertical method:</p> <p>Short Division TO \div O</p> $72 \div 3$ $\begin{array}{r} 24 \\ 3 \overline{) 72} \\ \underline{30} \\ 42 \\ \underline{30} \\ 12 \\ \underline{6} \\ 6 \\ \underline{6} \\ 0 \end{array}$ <p>Use cheat sheet</p> $1 \times 3 = 3$ $2 \times 3 = 6$ $4 \times 3 = 12$ $5 \times 3 = 15$ $8 \times 3 = 24$ $10 \times 3 = 30$ <p>Leading to subtract other multiples.</p> <p>Any remainders should be shown as integers e.g. 14 remainder 2 or 14 r2</p> <p>Children should make sensible decisions about rounding up or down after division especially in the context word problems.</p>	16				4	4	4	4
X	20	3																								
8	160	24																								
X	100	40	6																							
4	400	160	24																							
16																										
4	4	4	4																							