
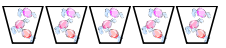
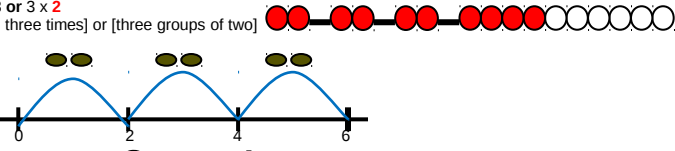
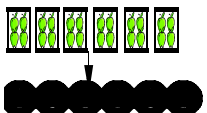
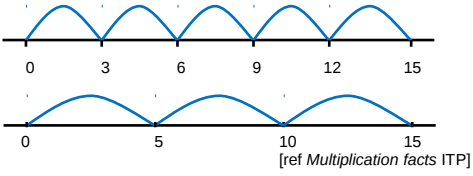
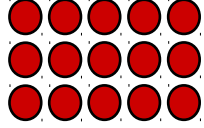
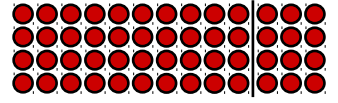



YR	Count repeated groups of the same size (1s / 2s / 5s / 10s) ref Overview of learning 5	Practical / recorded using ICT (eg digital photos / pictures on IWB)	Pictures / Objects 3 plates, 2 cakes on each plate: 		Counting on in 1s and 2s	(see recording)												
Y1	Solve (practical) problems that involve combining groups of 2, 5 or 10	Practical / recorded using ICT	Pictures / Symbols There are three sweets in one bag. How many sweets are there in five bags? 	Number tracks / Number line (modelled using bead strings) 2×3 or 3×2 [two, three times] or [three groups of two] 	Count on / back in 1s, 2s, 5s and 10s Doubles of numbers to 10	(see recording)												
Y2	Multiplication as repeated addition and arrays	Pictures / Symbols There are four apples in each box. How many apples in six boxes? 	Repeated addition 5×3 or 3×5 	Arrays 5×3 or 3×5  Also 14×2 as $(10 \times 2$ and $4 \times 2)$	Count in 2s, 5s and 10s Derive multiples of 2, 5 & 10 Relate to x facts (and derive related + facts) Doubles of numbers to 20	Doubles of TU numbers												
Y3	TU x U (eg 13×4)	Arrays 13×4  $10 \times 4 = 40$ $3 \times 4 = 12$ [ref Arrays spreadsheet]	Expanded grid method 13×4 	Compact grid method 13×4 <table border="1" data-bbox="1276 758 1500 853"> <tr> <td>x</td> <td>10</td> <td>3</td> </tr> <tr> <td>4</td> <td>40</td> <td>12</td> </tr> </table>	x	10	3	4	40	12	Partitioning (possible use of number line to record steps) $13 \times 4 = 52$ $10 \times 4 = 40$ $3 \times 4 = 12$	Derive / recall 2, 3, 4, 5, 6 and 10 times tables (Derive related division facts) Recognise multiples of 2, 5 and 10 up to 1000	U / TU x 10 / 100 (describe the effect) Doubles of TU / HTU numbers					
x	10	3																
4	40	12																
Y4	Record, support and explain: TU x U (eg 16×8 ; 43×6)	Partitioning 43×6 (estimate: $40 \times 6 = 240$) $40 \times 6 = 240$ $3 \times 6 = 18$	Compact grid method 43×6 <table border="1" data-bbox="750 933 963 1045"> <tr> <td>x</td> <td>40</td> <td>3</td> </tr> <tr> <td>6</td> <td>240</td> <td>18</td> </tr> </table> [ref Multiplication grid ITP]	x	40	3	6	240	18	Expanded vertical $\begin{array}{r} 43 \\ \times 6 \\ \hline 18 \quad (6 \times 3) \\ 240 \quad (6 \times 40) \\ \hline 258 \end{array}$	Compact vertical $\begin{array}{r} 43 \\ \times 6 \\ \hline 258 \\ \hline \end{array}$	Derive / recall facts to 10×10 Multiples of numbers to 10 up to the 10^{th} multiple	Numbers up to $1000 \times 10 / 100$ (whole number answers and understand the effect) Doubles of TU / HTU numbers and multiples of $10 / 100$					
x	40	3																
6	240	18																
Y5	Refine and use efficient methods: HTU x U TU x TU U.t x U	Grid method 47×36 (estimate: $50 \times 40 = 2000$) <table border="1" data-bbox="548 1157 705 1252"> <tr> <td>x</td> <td>40</td> <td>7</td> </tr> <tr> <td>30</td> <td>1200</td> <td>210</td> </tr> <tr> <td>6</td> <td>240</td> <td>42</td> </tr> <tr> <td></td> <td></td> <td>1692</td> </tr> </table> Including decimals	x	40	7	30	1200	210	6	240	42			1692	Expanded vertical 237×4 (estimate: $250 \times 4 = 1000$) $\begin{array}{r} 237 \\ \times 4 \\ \hline 28 \quad (4 \times 7) \\ 120 \quad (4 \times 30) \\ 800 \quad (4 \times 200) \\ \hline 948 \end{array}$	Compact vertical 4.7×8 (estimate: $5 \times 8 = 40$) $\begin{array}{r} 4.7 \\ \times 8 \\ \hline 37.6 \\ \hline \end{array}$	Recall quickly facts to 10×10 Use facts to multiply pairs of multiples of $10 / 100$ Use known facts to derive other facts [Find common multiples of two numbers]	TU x U (eg 12×9) TU x TU (eg 16×25) Doubles of U.t / 0.th Multiply whole numbers / decimals by $10 / 100 / 1000$
x	40	7																
30	1200	210																
6	240	42																
		1692																
Y6	Use efficient methods: Integer x U (eg 2307×8) Decimal x U (eg 31.6×7) TU x TU HTU x TU	Grid method 5.65×9 (estimate: $6 \times 9 = 54$) <table border="1" data-bbox="548 1380 728 1436"> <tr> <td>x</td> <td>5</td> <td>0.6</td> <td>0.05</td> </tr> <tr> <td>9</td> <td>45</td> <td>5.4</td> <td>0.45</td> </tr> <tr> <td></td> <td></td> <td></td> <td>50.85</td> </tr> </table> Answer: $5.65 \times 9 = 50.85$	x	5	0.6	0.05	9	45	5.4	0.45				50.85	Compact vertical 256×18 (estimate: $250 \times 20 = 5000$) $\begin{array}{r} 256 \\ \times 18 \\ \hline 2048 \quad (8 \times 256) \\ 2560 \quad (10 \times 256) \\ \hline 4608 \\ \hline \end{array}$	Use facts up to 10×10 to derive facts involving multiples of $10 / 100$ (eg 80×30) and decimals (eg 0.8×7) Derive squares of numbers to 12×12 Derive corresponding squares of multiples of 10	TU x U U.t x U Integer x $1000 / 100 / 10 / 0.1 / 0.01$	
x	5	0.6	0.05															
9	45	5.4	0.45															
			50.85															

Estimate first

