


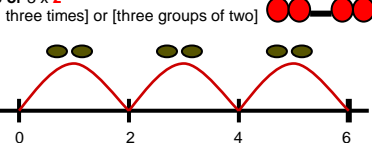
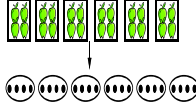
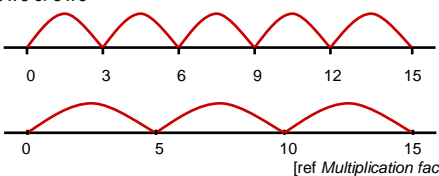
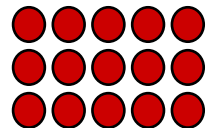
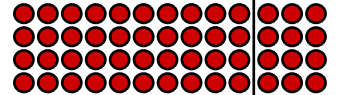

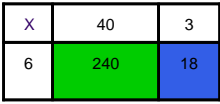


YR	Count repeated groups of the same size (1s / 2s / 5s / 10s) <i>ref Overview of learning 5</i>	Practical / recorded using ICT (eg digital photos / pictures on IWB)	Pictures / Objects 3 plates, 2 cakes on each plate: 	Symbols 3 plates, 2 cakes on each plate: 	Counting on in 1s and 2s	(see recording)	
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 <i>repeated addition</i> and <i>arrays</i>	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 TO numbers	
Y3	TO x O (eg 13×4)	Arrays 13×4  $10 \times 4 = 40$ $3 \times 4 = 12$ [ref Arrays spreadsheet]	Compact grid method 13×4 	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	O / TO x 10 / 100 (describe the effect) Doubles of TO / HTO numbers	
Y4	Record, support and explain: TO x O (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  [ref Multiplication grid ITP]	Expanded vertical $\begin{array}{r} 43 \\ \times 6 \\ \hline 18 \quad (3 \times 6) \\ 240 \quad (40 \times 6) \\ \hline 258 \end{array}$	Compact vertical $\begin{array}{r} 43 \\ \times 6 \\ \hline 258 \end{array}$	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 TO / HTO numbers and multiples of 10 / 100
Y5	Refine and use efficient methods: HTO x O TO x TO O.t x O	Expanded vertical 237×4 (estimate: $250 \times 4 = 1000$) $\begin{array}{r} 237 \\ \times 4 \\ \hline 28 \\ 120 \\ 800 \\ \hline 948 \end{array}$	Compact vertical 4.7×8 (estimate: $5 \times 8 = 40$) $\begin{array}{r} 4.7 \\ \times 8 \\ \hline 37.6 \\ \hline \end{array}$ *Carry up	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]	TO x O (eg 12×9) TO x TO (eg 16×25) Doubles of O.t / O.th Multiply whole numbers / decimals by 10 / 100 / 1000		
Y6	Use efficient methods: Integer x O (eg 2307×8) Decimal x O (eg 31.6×7) TO x TO HTO x TO	Expanded vertical 2327×8 (estimate: $2300 \times 10 = 23\,000$) $\begin{array}{r} 2327 \\ \times 8 \\ \hline 56 \\ 160 \\ 2400 \\ 16000 \\ \hline 18616 \end{array}$	Compact vertical 256×18 (estimate: $250 \times 20 = 5000$) $\begin{array}{r} 256 \\ \times 18 \\ \hline 2048 \\ 2560 \\ \hline 4608 \\ \hline \end{array}$ Answer: $256 \times 18 = 4608$ *Carry up	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	TO x O O.t x O Integer x 1000 / 100 / 10 / 0.1 / 0.01		

Estimate first

