

Year 2					
Concrete	Pictorial	Abstract			
Know 2, 5 and 10 times tables.		·			
Numicon	Doubling $5 + 5 = 10$ or $2 \times 5 = 10$	5 + 5 = 2 or 2 x 5 = 10			
	10 5 5 5				
Dice, multi-link, groups of objects.	Groups/lots of 3 x 2 = 6	3 x 2 = 6			
2 x 5 =	(x x) (x x) (x x)				
	Arrays				
Place value counters	3 x 5 = 15	Annie needs 15 eggs. They are sold			
5 x 10 =		in rows of 5. How many rows will she need?			
10 10 10 10					
Write and solve x and ÷ problems within 2, 5, 10x table	s				





Year 3							
Concrete Pictorial Abstract							
Know 2, 3, 4, 5, 6, 8 and 10 times tables.							
Use doubling to connect 2, 4 and 8 times tables.	Use doubling to connect 2, 4 and 8 times tables.						
Write and calculate multiplication statements usin	g mental and efficient written methods						
Multiplication using repeated addition 3 x 8 =	Multiplication using repeated addition $\begin{array}{c} & & \\ & &$	Multiplication using repeated addition 8 + 8 + 8 = 3 x 8 = 24					
Multiplication using arrays 4 x 6 =	Multiplication using arrays $4 \times 6 =$ $4 \times 6 = 24$	Multiplication using arrays 4 x = 24					



Year 4						
Concrete	Abstract					
Know all multiplication tables to 12 x 12.						
Use doubling to connect 3 and 6, 4 and 8, 6 and 12	times tables.					
Multiply numbers by 0 and 1						
Multiplying together three 1-digit numbers , knowi	ng that multiplication can be done in any order.					
Use knowledge that multiplication is commutative to find the most efficient order in which to multiply three single digit numbers.	Use knowledge that multiplication is commutative to find the most efficient order in which to multiply three single digit numbers.	Use knowledge that multiplication is commutative to find the most efficient order in which to multiply three single digit numbers.				
$2 \times 7 \times 5 = 2 \times 5 \times 7$ (2 x 5 = 10)	Pictorial	$2 \times 7 \times 5 = 2 \times 5 \times 7$ $2 \times 5 = 10$ $10 \times 7 = 70$				
(10 x 7 = 70)	(3 x 4 = 2 x 6)					
15 x 6 = (Model multiplication facts using Numicon)	15 x 6 = We can use our knowledge of factors to help us solve 15 × 6	$15 \times 6 =$ 15×6 $3 \times 5 \times 6$				

Multiply 2 digit and 2 digit numbers by a single digit		3 x 5 x 6 = 5 x 6 = 30 30 x 3 = 9			
	1. T	Τ			
Expanded method	Expanded method	Expanded method			
21 x 3 = (Using Base ten)	21 x 3 = (Drawing)	21 x 3 =			
T D	TO	ТО			
)		2 1			
		« 3			
	•	³ (3 × 1)			
		* ⁶ ⁰ (3 × 20)			
Compacted method	Compacted method	Compacted method			
24	245	245			
34 X 5 = (Lising place value counters)	$34 \times 5 =$	34 x 5 =			
		3 4 - - - × 5 - - - 2 0 (5 × 4) 1 5 0 (5 × 30)			

	Short multiplication	Using missing numbers
	4 3 x 3	39 X0 16

Year 5						
Concrete	Pictorial	Abstract				
Multiply numbers using known facts.						
Concrete	Pictorial Number line	Abstract				
(Refer back to previous years for concrete examples)	102 x 8 = 816	102 x 8 =				
	100 × 8= 800 800 816	102 x 🗔 = 816 123 x 🗔 = 615				
	123 x 5 = 615					
	$ \begin{array}{c} 1 & 2 & 3 \\ \hline 1 & 2 & 3 \\ \hline 1 & 2 & 3 \\ \hline x5 & x5 & x5 \\ x5 & x5 & x5 \\ x5 & x5 & x5 \\ 500 + 100 + 15 = 615 \end{array} $					



Multiply numbers up to 4 digits by 1 or 2 digits using a formal written method, including long multiplication.				
(Refer back to previous years for concrete examples)	$342 \times 7 = $ $\times 300 \ 40 \ 2 \ 2100 \ 7 \ 2100 \ 280 \ 14 \ + \ 14 \ 2394 \ $	Short multiplication - Multiply 3-digit by 1-digit 342×7 becomes $\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		
(Refer back to previous years for concrete examples)	$2741 \times 6 =$ $\times 2000 700 40 1 12000$ $6 12000 4200 240 6 + 4200 + 4200 + 6 + 6$ 16446	Short multiplication - Multiply 4-digit by 1-digit $2741 \times 6 \text{ becomes}$ $2 7 4 1$ $\times 6$ $1 6 4 4 6$ $4 2$		
(Refer back to previous years for concrete examples)	$24 \times 16 =$ $\times 20 4$ $10 200 40 + 120$ $+ 40$ $+ 24$ $6 120 24 - 384$	Long multiplication – Multiply a 2-digit by a 2-diigt 24×16 becomes 2×16 2×16 2×16 2×16 2×16 2×16 2×16 3×16 2×16 3×16		

(Refer back to previous years for concrete examples)	× 20 6	12 100 2000 600	4 x 26 20 400 120	= 4 80 24	$ \begin{array}{c} 2000 \\ 400 \\ 600 \\ + 120 \\ 80 \\ 24 \\ \hline 3224 \end{array} $	Long multiplication – Multiply a 2-digit by a 2-digit 124×26 becomes 1 2 1 2 4 $\times 2 6$ 2 4 8 0 7 4 4 2 2 2 6
						3 2 2 4

Year 6						
Concrete	Pictorial	Abstract				
Multiply using all multiplication facts						
Multiply whole numbers and those involving decimals	by 10, 100 and 1000					
Multiply numbers up to 4 digits by 2-digit using long m	nultiplication					
(Refer back to previous years for concrete examples)	$5249 \times 61 =$ $\times 5000 200 40 9$ $60 300,000 12,000 2400 540 = 314940$ $1 5000 200 40 9 = 5249$ 314940 $+ 5249$ 314940 $+ 310189$	Long multiplication – Multiply a 4-digit by a 2-diigt E.g. 5249 x 61 = 5249 $\times 61$ 5249 314940 320189				

