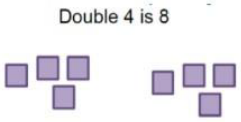
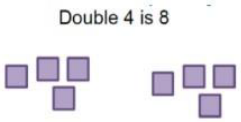
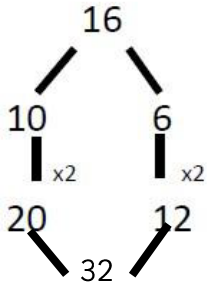
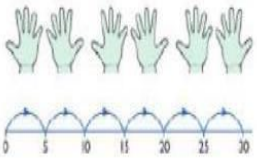
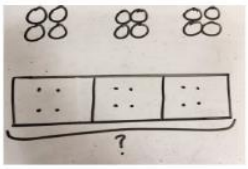
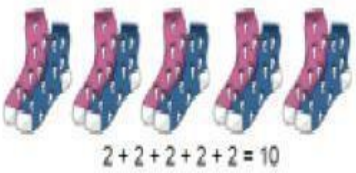
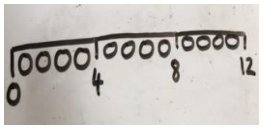
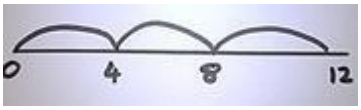
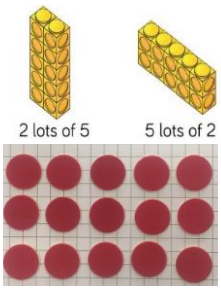
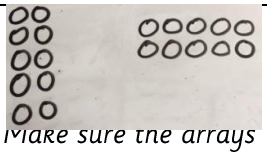
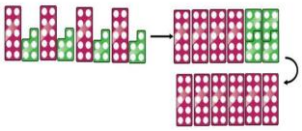
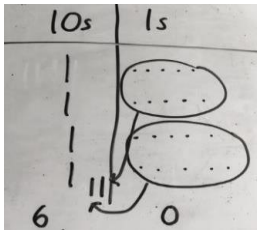
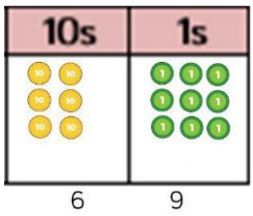
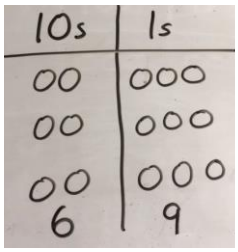
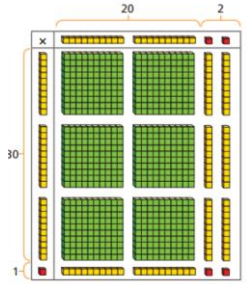
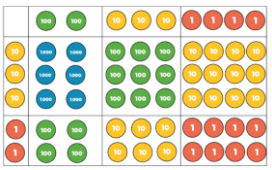
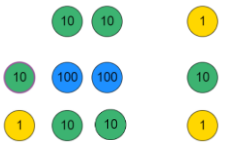
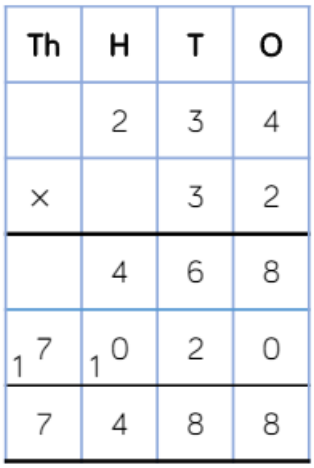
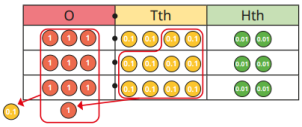
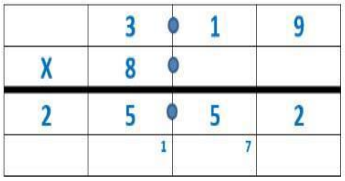
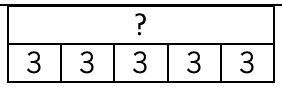
Progression in Multiplication at Brunswick House

Stage	Objective	Concrete	Pictorial	Abstract
EYFS/Year 1	Doubling	Use practical activities and varied resources to show how to double a number. 	Draw pictures to show how to double a number. 	Number sentences: 4 + 4 = 8
Year 2	Doubling	Use practical activities to show how to double a number. 	Draw pictures to show how to double a number. 	Partition a number and then double each part before recombining it back together. 
Year 1/Year 2	Counting in multiples	Count in multiples supported by concrete objects in equal parts. 	Use a number line or pictures to continue support in counting in multiples. 	Count in multiples of a number aloud. (Use a counting stick to support this). **Write sequences with multiples of numbers.** 2, 4, 6, 8, 10, 12, 14, 16, 18, 20 5, 10, 15, 20, 25, 30, 35, 40, 45…
Year 1/Year 2	Repeated addition	Repeated grouping/repeated addition with varied resources **5 + 5 + 5 = 15** **4 + 4 + 4 = 12** 	Children to represent in a picture and/or use a bar model. 	Write addition sentences to describe objects and pictures. **4 + 4 + 4 = 12** 
Year 2/Year 3	Number lines showing repeated groups	3 x 4 = 	Represent this pictorially. 	Abstract number lines showing jumps of the correct amount. 
Year 2	Arrays – showing	Create arrays using counters/ cubes to show multiplication sentences.	Children to represent the arrays pictorially.	Children to be able to use an array to write a range of calculations

	commutative multiplication		 *Make sure the arrays are drawn in different orientations to find the commutativity.*	e.g. **10 = 2 × 5** **5 × 2 = 10** **2 + 2 + 2 + 2 + 2 = 10** **10 = 5 + 5** Use an array to write multiplication sentences and reinforce repeated addition.
Year 3	Partition to multiply	Partition to multiply using Numicon, Base 10 or Cuisenaire rods. 4 x 15 = 	Children to represent the concrete manipulatives pictorially. 	4 x 15 10 5 10 x 4 = 40 5 x 4 = 20 40 + 20 = 60
Year 3/4	Multiply 2/3 digit number by 1 digit number (Column method)	Place value counters/dienes can be used to show repeated addition **3 x 23 =** 	Children to represent the counters/dienes pictorially. 	Children to record what it is they are doing to dhow understanding. 3 x 23 3 x 20 = 60 3 x 3 = 9 60 + 9 = 69 23 × 3 69
Year 4/5/6	Multiply increasingly large numbers (Column method)	Continue to represent numbers using place value counters and dienes. Present multiplications in a grid format.  	Children to represent the counters/base 10 pictorially 	Record in formal written method 

Year 6	Multiply decimals	Represent decimals with place value counters and present in the form of repeated addition 	Children to represent this pictorially	
All	Use bar models to represent multiplication calculations and problems		 5 x 3 = 15	
<u>Times Table Progression</u> Year 2: 10 x, 5x, 2x Year 3: 4x, 8x, 3x Year 4: 6x, 12x, 11x, 9x, 7x				