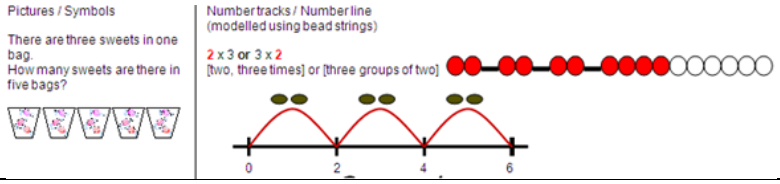
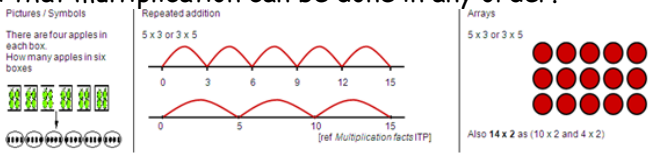
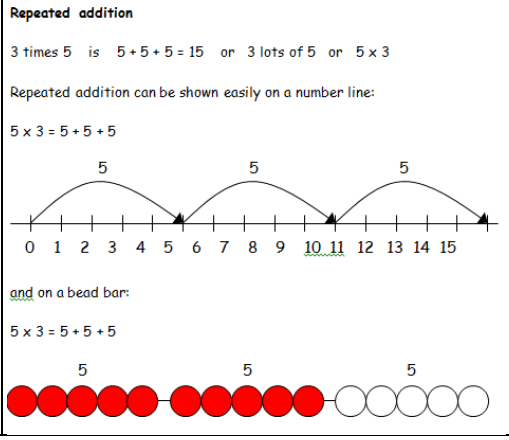
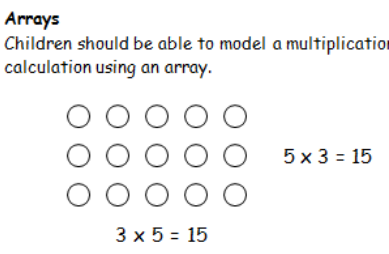
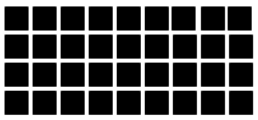
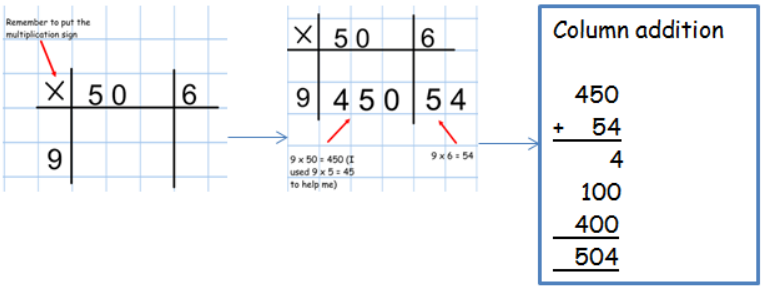
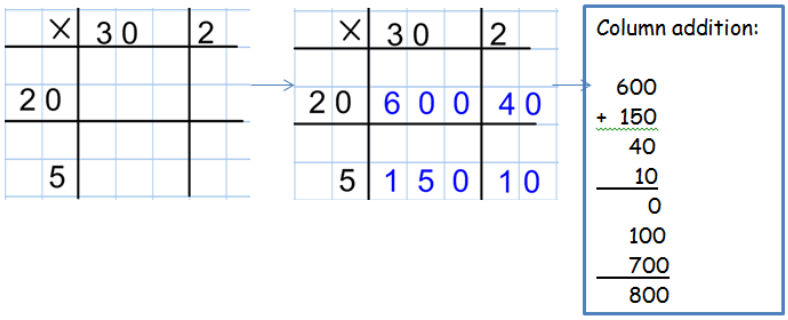
Progression in Teaching Multiplication

Year Group	Progress ion of skills and methods	Link to Bare Necessities Games
Foundation Stage	• Children are taught early multiplication as repeated addition. • You can help your child with early multiplication by encouraging them to draw pictures and use objects to represent simple multiplication calculations. 	**2s and 5s**
Year 1	• Children learn that multiplication is the same as 'repeated addition'. • You can support your child by encouraging them to draw pictures and use practical objects to support early multiplication calculations. • Children will also learn to use a numberline to support their calculations, learning to jump on in repeated steps. 	**Fishy, fishy fingers (2)** **Beat the clock** **2s and 5s** **How many?**
Year 2	• Children continue to understand multiplication as repeated addition, recording this on a numberline as repeated jumps. They will also be introduced to arrays to represent multiplication calculations. This is a pictorial representation of a multiplication calculation which helps them to understand that multiplication can be done in any order.  • You can support your child with multiplication calculations by encouraging them to continue to use objects and pictures/arrays but also by using a numberline and counting on in repeated jumps. • Children will also have experience of learning the multiplication facts for the 2, 5 and 10 x tables.  	**Fishy, fishy fingers (2)** **Beat the clock** **2s and 5s** **How many?**

Year 3	• At this stage, children will continue to understand multiplication as repeated addition and will show this on a numberline or as an array. They will also be taught how to use a grid to multiply 1 and 2 digit numbers. This is known as the 'Grid Method'. **Arrays** Children should be able to model a multiplication calculation using an array. This knowledge will support with the development of the grid method.  9 x 4 = 36 9 x 4 = 36 **Partitioning and use of the grid method** e.g. 56 x 9 = 504 	**Multiplication choice** **Noughty, noughty** **Chunky** **Remainder choice** **Round and divide** **Flip and role** **Beat the clock**
Year 4	• At this stage, children will use the grid method to multiply 2 digit by 2 digit numbers. They will also use a grid to multiply decimals. • When children are ready, they will be introduced to a more vertical method of recording which is known as expanded short multiplication (see year 5). **Grid Method** e.g. 32 X 25 = 800 	**Multiplication choice** **Noughty, noughty** **Chunky** **Remainder choice** **Round and divide** **Flip and role** **Beat the clock**
Year 5	• Children will have experience of working with increasingly larger numbers, multiplying numbers up to 4 digits by U or TU efficiently. • They will demonstrate a good understanding of place value in terms of using the grid method to multiply decimals. • The focus is on being able to use an efficient written method to multiply so children will revise the expanded method for multiplication but some will move onto the compact method. ✓ Children need to know and understand that if 2x3=6 then 2x0.3=0.6 and 0.2x0.3=0.06	**Multiplication choice** **Noughty, noughty** **Chunky** **Remainder choice**

	Grid method 5.65 × 9 (estimate: 6 × 9 = 54) | ×	5	0.6	0.05	
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9	45	5.4	0.45	50.85 | Answer: 5.65 × 9 = 50.85 **Expanded short Multiplication** The next step is to represent the method of recording in a column format, but showing the working. Draw attention to the links with the grid method. HTU 38 X 7 56 210 266 **Compact short multiplication** The recording is reduced further, with carry digits recorded below the line. If, after practice, children cannot use the compact method without making errors, they should return to the expanded format. HTU 38 X 7 266	**Round and divide** **Flip and role** **Beat the clock**
Year 6	• Children will learn to multiply multi-digit numbers up to 4 digits by a 2 digit whole number. • They will be encouraged to use the most efficient written method that they are confident with. Namely the expanded or compact method of recording. THTU 56 X 27 42 350 120 1000 1512 **Expanded long multiplication** THTU 56 X 27 392 1120 1512 **Compact long multiplication**	**Multiplication choice** **Noughty, noughty** **Chunky** **Remainder choice** **Round and divide** **Flip and role** **Beat the clock**