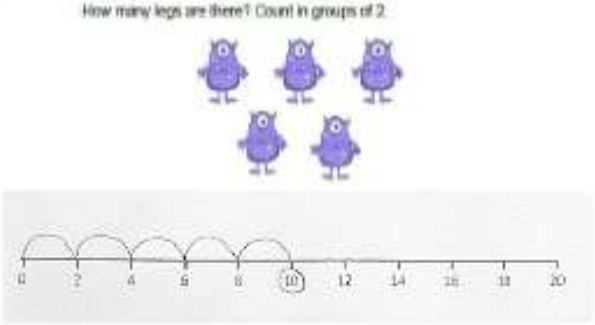
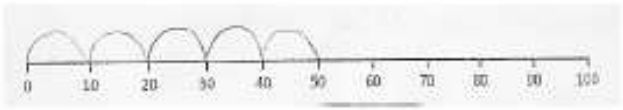
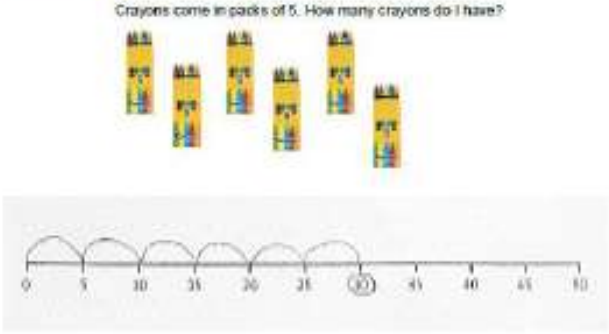
Multiplication

Multiplication – Year 1

Selected National Curriculum Programme of Study Statements	The Big Ideas (NCETM)
Pupils should be taught to: • count in multiples of twos, fives and tens. • solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	Counting in steps of equal sizes is based on the big idea of 'unitising'; treating a group of, say, five objects as one unit of five. Working with arrays helps pupils to become aware of the commutative property of multiplication, that 2 × 5 is equivalent to 5 × 2

Please note that manipulatives and visual representations may be used alongside more formal recording as appropriate. It is important for pupils to explore structure and understand a concept before developing a more procedural approach, at which point all representations may be used alongside each other.

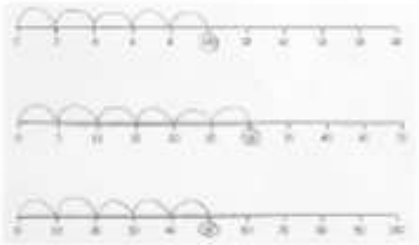
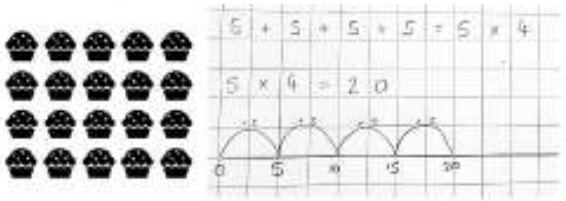
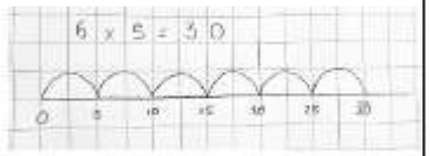
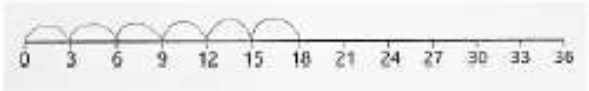
Stage 1	Stage 2	End of Year Expectation
Count in multiples of twos Number track 	**Count in multiples of tens** Number track 	**Count in multiples of fives** Number track 
Solve one step multiplication, by calculating the answer using pictorial representations (twos) Structured number line, e.g: 	**Solve one step multiplication, by calculating the answer using pictorial representations (tens).** Structured number line, e.g: *There are 10 crayons in a box.* *How many crayons will I have if I buy 5 boxes?* 	**Solve one step multiplication, by calculating the answer using pictorial representations (fives).** Structured number line, e.g: 

Multiplication

Multiplication – Year 2

Selected National Curriculum Programme of Study Statements	The Big Idea (NCETM)
Pupils should be taught to: • count in steps of two, three, and five from 0, and in tens from any number, forward and backward. • recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in context.	It is important that pupils both commit multiplication facts to memory and also develop an understanding of conceptual relationships. This will aid them in using known facts to work out unknown facts and in solving problems. Pupils should look for and recognise patterns within tables and connections between them (e.g. 5× is half of 10×). Pupils should recognise multiplication and division as inverse operations and use this knowledge to solve problems. They should also recognise division as both grouping and sharing.

Please note that manipulatives and visual representations may be used alongside more formal recording as appropriate. It is important for pupils to explore structure and understand a concept before developing a more procedural approach, at which point all representations may be used alongside each other.

Stage 1	Stage 2	End of Year Expectation
Count in steps of two, five from 0 and in tens from any number, forward and backward. Structured number line. 	**Solve problems involving multiplication using repeated addition.** Unstructured number line, e.g *How many muffins are there altogether?* 	**Recall and use multiplication facts for the 2, 5 and 10 multiplication tables.** Unstructured number line to 'prove it'  
Count in steps of 3. Number track  	**Count in steps of 3.** Structured number line, e.g. *Tilly ran 3 miles every day.* *How many miles has she run after 6 days?*  	**Count in steps of 3.** Unstructured number line