Multiplication – Year 2

Selected National Curriculum Programme of Study Statements 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.
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.

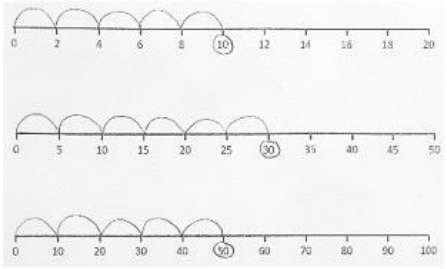
The Big Ideas (NCTEM)

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. The recognition of pattern in multiplication helps pupils commit facts to memory, for example doubling twice is the same as multiplying by four, or halving a multiple of ten gives you the related multiple of five.

Stage 1

Count in steps of two, five from 0 and in tens from any number, forward and backward.

Structured number line.



Count in steps of 3. Number track

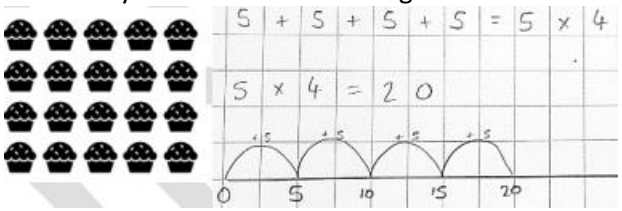
3	6	9	12	15	18	21	24	27	30

Stage 2

Solve problems involving multiplication using repeated addition.

Unstructured number line, e.g

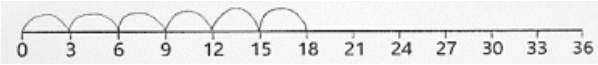
How many muffins are there altogether?



Count in steps of 3. Structured number line, e.g.

Tilly ran 3 miles every day.

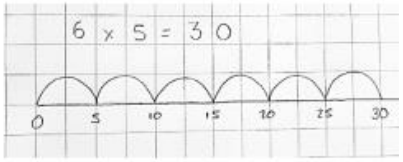
How many miles has she run after 6 days?



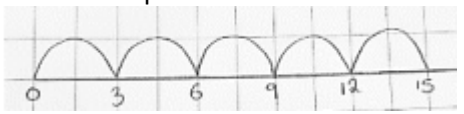
End of year expectation

Recall and use multiplication facts for the 2, 5 and 10 multiplication tables.

Unstructured number line to 'prove it'



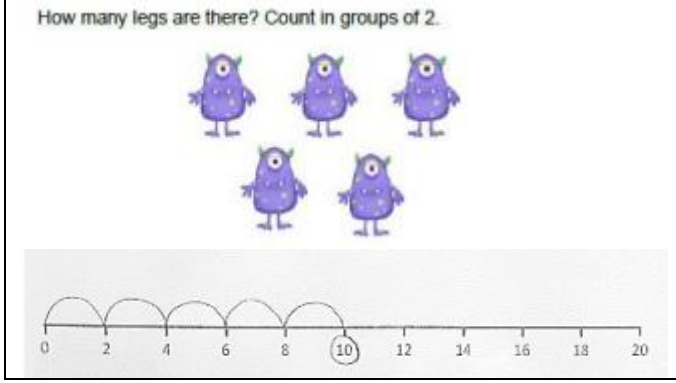
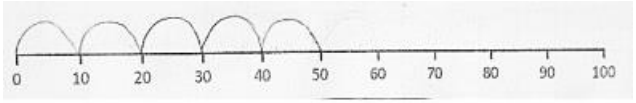
Count in steps of 3. Unstructured number line



HIAS Progression in Calculation

Division – Year 2

Selected National Curriculum Programme of Study Statements Pupils should be taught to: •	**The Big Ideas (NCETM)** 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

Stage 1	**Stage 2**	**End of year expectation**
Count in multiples of twos Number track 2 4 6 8 10 12 14 16 18 20 Solve one step multiplication, by calculating the answer using pictorial representations (twos) Structured number line, e.g: 	Count in multiples of tens Number track 10 20 30 40 50 60 70 80 90 100 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? 	Count in multiples of fives Number track 5 10 15 20 25 30 35 40 45 50 Solve one step multiplication, by calculating the answer using pictorial representations (fives). Structured number line, e.g: