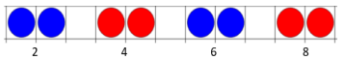
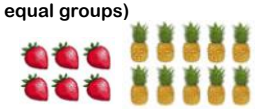
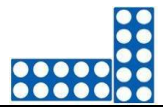
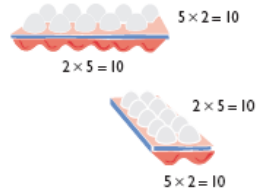
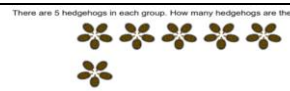
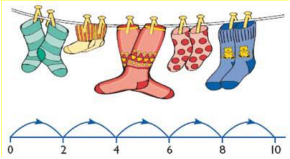
Tilstock Calculation Policy Multiplication KS1

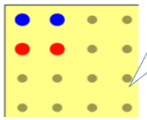
EYFS	**Reception: ELG 2021** • Have an understanding of number to 10, linking names of numbers, numerals, their value, and their position in the counting order. • Subitise (recognise quantities without counting) up to 5. • Automatically recall number bonds for numbers 0-5 and *for 10*, including corresponding partitioning facts. • Automatically recall double facts up 5+5 • Compare sets of objects up to 10 in different contexts, considering size and difference • Explore patterns of numbers within numbers up to 10, including evens and odds.			
Year	Year 1		Year 2	
Layers of vocabulary  **Appendix 1a** Beck's Tiers of Vocabulary **Appendix 1b:** Vocabulary book	**Basic to subject specific (Beck's Tiers):** count in ones, twos… tens… array, groups of, equal groups odd, even **Instructional vocabulary:** carry on, continue repeat what comes next? find, choose, collect use, make, build tell me, describe, pick out, talk about, explain, show me, read, write, record		**Basic to subject specific (Beck's Tiers):** lots of, groups of ×, times, multiply, multiplied by multiple of once, twice, three times… ten times… times as (big, long, wide… and so on) repeated addition array row, column double, halve share, share equally **Instructional vocabulary:** carry on, continue, repeat, what comes next? predict describe the pattern describe the rule find, find all, find different, investigate	
NC 2014	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.		Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.	
	Concrete, pictorial, abstract		Concrete, pictorial, abstract	
Developing Conceptual/ Procedural Understanding	**Grouping**  **2 frogs on each lily pad**  	**Arrays** **(rectangular arrangements to show equal groups)** 	**Repeated addition**  **Introduce the x symbol once repeated addition is understood.**	**Commutativity**  

Tilstock Calculation Policy Multiplication KS1



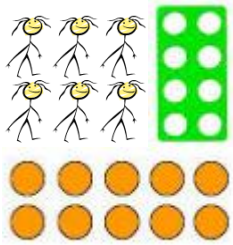
Doubles

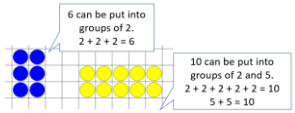




Use your peg board to show
4 groups of 2
3 groups of 10
5 groups of 5

Is it true that all groups of 2 are even?
Do all groups of 10 end in 0?

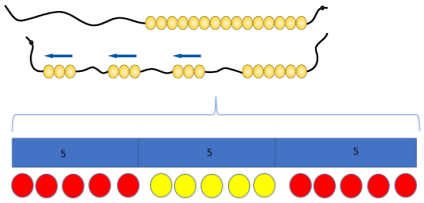




Complete
6, 8, 10, ...20
15, 20, 25.....50
60, 70, 80.....100

Grouping

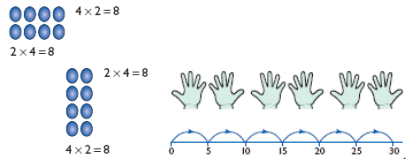
5 frogs on each lily pad 5 x 3 = 15



Building tables

Build tables using counting stick- forwards and backwards and with missing jumps

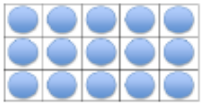
5 x2 = 2 x 5



5 + 5 + 5 + 5 + 5 + 5 = 30
5 × 6 = 30
5 multiplied by 6
6 groups of 5
6 hops of 5

Decision making

How many number sentences can you write to describe this array? Can you use addition, multiplication and division?



Explain your answers.

6. Write a story to go with this equation.
   $6 \times 10 = 60$
7. Complete the calculations.
   $7 \times 5 = \square$ $10 \times 4 = \square$ $9 \times 2 = \square$

Known facts	Count in multiples of twos, fives and tens.		Recall and use x and ÷ facts for the 2, 5 and 10 x tables, including recognising odd and even numbers.	
Essential Knowledge	Count in 2s	Doubles up to 10	2 x table	Doubles up to 20
	Count in 10s	Double multiples of 10	10 x table	Doubles of multiples of 5
	Count in 5s	Count in 2s, 5s and 10s	5x table	Count in 3s