

Stage 1

Children are encouraged to develop a mental image of the size of numbers. They learn to think about equal groups or sets of objects in practical, real life situations. They begin to record these situations using pictures.



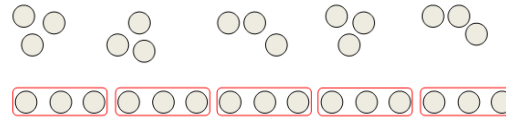
A child's jotting showing fingers on each hand as a double.



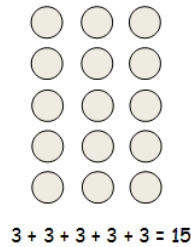
A child's jotting showing double three as three cookies on each plate.

Stage 2

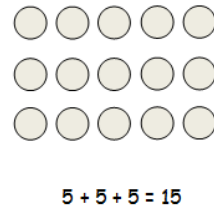
Children understand that multiplication is repeated addition and that can be done by counting in equal steps/groups.



Children can then be introduced to the image of a rectangular array, initially through real items such as egg boxes, baking trays, ice cube trays, wrapping paper etc. and using these to show that counting up in equal groups can be a quicker way of finding a total.

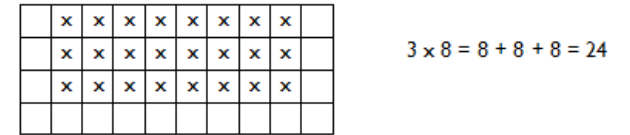
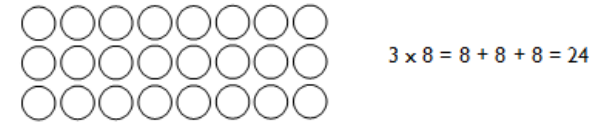


Children also understand that 3 x 5 is the same as 5 x 3



Stage 3

Children continue to use arrays and create their own to represent multiplication calculations



Stage 4

Children will continue to use arrays to lead into the grid method of multiplication.

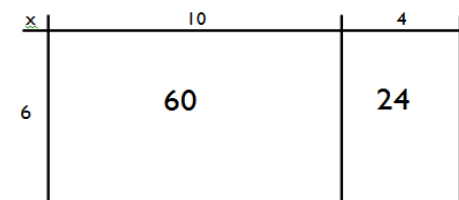
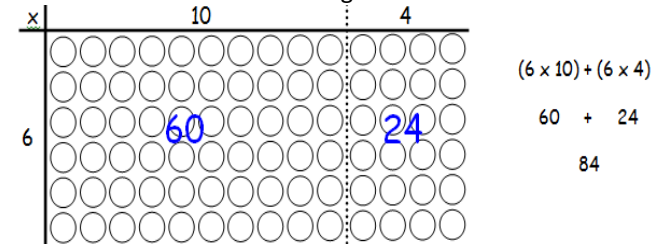
14 x 6

The 14 is partitioned (split) into 10 and 4.

The answer to 6 x 10 is found = 60

The answer to 6 x 4 is found = 24

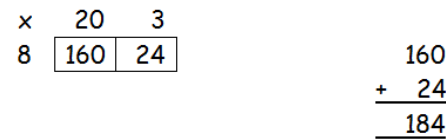
The two answers are added together 60 + 24 = 84



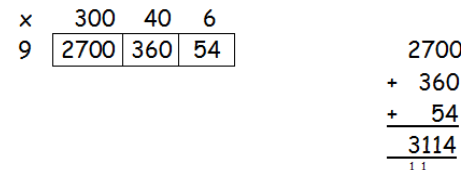
Stage 5

This is the next stage. The array is removed and children use the grid method.

23 x 8



346 x 9



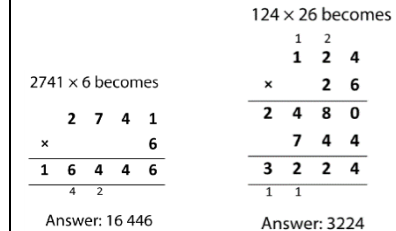
The focus will be on LKS2 securing children's knowledge on multiplication using the grid method. Children in UKS2 can use the vertical method (long and short) Vertical methods can be used for LKS2 children with secure place value and calculation knowledge.

Stage 6

In this final stage, pupils will move on to short and long formal multiplication methods.

Short multiplication

Long multiplication



This will include multiplying numbers with up to two decimal places by one and two-digit whole numbers.



