National Curriculum Programme of Study;

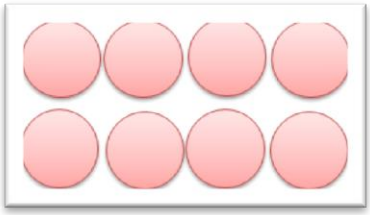
- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs

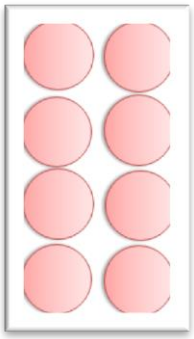
Y2
Multiplication

BY THE END OF YEAR 2…

Children should be able to recognise arrays in printed form and in the environment, and be able to describe them in terms of repeated addition as well as with a multiplication statement.

Following on from year 1…
Making arrays using physical objects and representing them in drawings

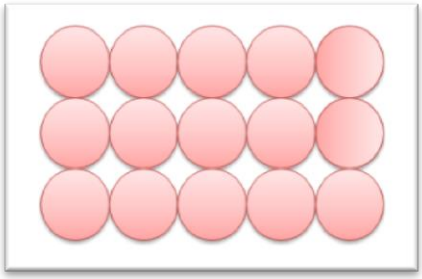




Children should be familiar with the array image for multiplication from their experiences in Year 1. Children in year 2 should continue their experiences with arrays, arranging counters, drawing their own representations, counting and labelling the groups.

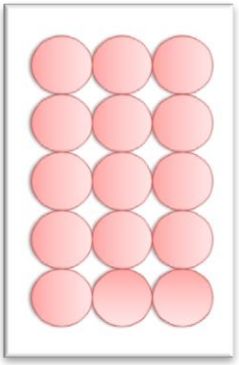
E.g. 4 groups of 2 (starting from the left of the array) or 2 groups of 4 (starting from the left of the array)

Annotating arrays using repeated addition



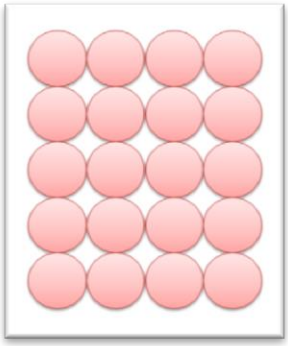
Children should be encouraged to see the array as a number of counters repeated in rows.
E.g. 3 + 3 + 3 + 3 + 3 = 15

5 + 5 + 5 = 15



N.B. These examples encourage children to see an array being built up from the left column, which links well to later work for division. Arrays can be viewed as being built up from top to bottom, but practice needs to be consistent.

Annotating arrays using multiplication



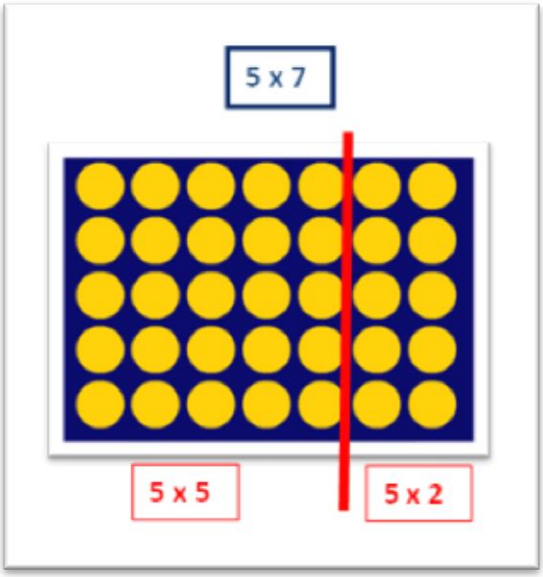
5+ 5 + 5 + 5 = 20
5 x 4 = 20

This annotation links to the idea of multiplication as ‘scaling’; making a number so many times bigger. Here the starting number is 5 and it is ‘scaled up’ four times, or by a factor of four.

Recognising arrays in the environment

Children should be encouraged to recognise arrays in the local environment and use these to support their multiplication skills. Examples could include wrapping or wallpaper patterns, flowers and other natural objects, cinema seats, bricks on a wall, windows or balconies on a building.

Using arrays and known facts for multiplication



Children should be encouraged to use known multiplication facts to calculate others that are unknown to them.

Ask the children to describe the array as *5 rows of 7 circles* or *7 columns with 5 circles in each column*. Draw a line to split the array into two smaller ones, each matching known facts for multiplication.

The example here shows 5 x 7 (the array being built up from the left) being split into 5 x 5 and 5 x 2.

Sections of wallpaper or wrapping paper printed with a row/column design can be used in the classroom. Children can be asked to find how many 'spots' by drawing their own lines onto the sheet, splitting the whole array into smaller ones using known multiplication facts.