

# Using arrays for grouping introduction

Use real classroom counters for this lesson so children can physically build and rebuild the array. Loose counter cards are included as a backup, but they are not as easy to rearrange as real counters.

## 1 Rows and columns show equal groups without any counting out

Build an array of counters with 3 rows and 4 columns (12 counters in total).

*"This is an array. What do you notice about how it is arranged?"*

Point out the rows, counting them.

*"These are the rows. How many rows are there?"*

Point out the columns, counting them.

*"These are the columns. How many columns are there?"*

Show that the rows themselves are equal groups — no dealing or counting out needed, the grid already shows it.

*"Each row has the same number in it. The rows are already equal groups — the array shows us without any sharing out."*

Show that the same array can also be read by columns, giving a different but equally valid grouping.

*"We could also group this array by columns instead. Same array, different groups."*

Rebuild the array with one counter moved out of line, so one row has 5 and another has 3. Show this is a common mistake. Check it: does every row have the same number as every other row?

*"I called this an array, but one row has an extra counter in it. Does every row match every other row? If not, it is not a true array."*

**Counter cards — demonstration (backup only — real counters are best)**

