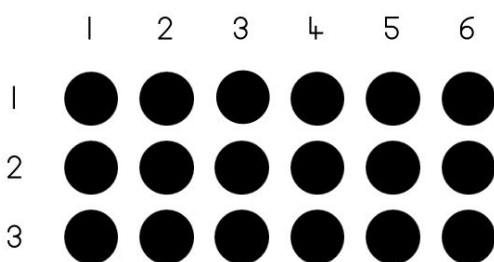# Dice Multiply Bingo (with arrays)

Where are they now?

Use group structure and skip, stress or rhythmic counting to determine total of a multiplication problem.

Where to next?

Students are able to use arrays to make, model and explore equal groups (rows or columns) and totals, and so develop more efficient strategies for solving multiplication problems.

Why?

The rapid determination of multiplication facts frees up a student's working memory and allows them to engage in higher order calculation tasks.

Materials:

For each pair of students:
- A 10 x 10 dot array sheet
- Two blank sheets of paper
- A Spinner sheet (1 – 3 and 0 – 9)
- Two Paperclips (for spinners)

For each Student:
- A 1, 2, 3 times Bingo sheet
- 15 counters

How?

Students take turns to spin both of the spinners and multiply the two indicated numbers together. They then locate the resulting product on their bingo sheet and cover it with a counter. For example if they spin a 3 and a 5, they locate the number 15 on their sheet and cover with a counter.

If students require support to determine the total, they can use their 10 x 10 array. For example, if a student rolls a 3 and a 6, they cover up all but three rows and all but 6 columns. The resulting array can be used to determine the total (see example array above). Students should be encouraged to stress or skip count if they initially count from 1. More efficient strategies should be gradually introduced (such as using commutativity, doubling and so on) as they become appropriate.

Students should be gradually encouraged to try to recall the relevant multiplication facts before they use their arrays as they gain experience.