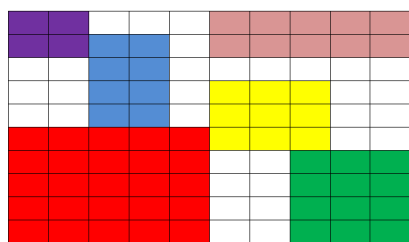


# Multiplication Paddocks - Teaching Arrays in Mathematics

## The Array Game



## Summary:

A two player game play where you try to take control of the largest amount of the whole paddock.

This game can also be linked to fractions, decimals and percentages.

## Rules:

1. You will need one sheet of grid paper to play "Multiplication Paddocks".
2. You are going to compete against a partner to try and fill in the largest proportion of the grid (paddock).
3. Start by rolling 2 dice to create 2 FACTORS. multiply these FACTORS together to create a PRODUCT (an answer).
4. Your aim is to create as many arrays on your grid paper as you can. An array is either a rectangle or a square set into columns and rows, which displays length and width. Arrays are shown by drawing a line around the outside of a rectangle or square (e.g. an array of  $2 \times 4 = 8$  so you would draw a square or rectangle with 8 squares in it). You must make sure you write the number sentence within the rectangle or square.
5. Remember to use different coloured texta for each person.
6. The winner is the person who has filled up the majority of the grid (no overlapping of squares). (This is where the game can be modified to decimals, percentages or fractions).
7. As the grids fill up players will roll totals that will not fit on the grid, you can break up the factors if you choose. For example,  $6 \times 4$  is the same as  $2 \times 4$  and  $4 \times 4$ . This implicitly reinforces the distributive law of multiplication.

## Extension:

1. Cut out and reorder the areas that are rolled to create a whole rectangle/square. For example, if you used 100 squares and little Johnny had 40 of them and Smarty Sam had 60 of them see if you can recreate a rectangle or square that shows easily that one has more than the other. (Linked to ratio!)

## Resources:

- Dice
- Grid Paper
- Textas
- Workbooks or paper (for recording strategies)

