

## Make Arrays

### Adult Guidance with Question Prompts



Children make and use arrays. They use repeated addition and stem sentences to support their learning. They learn that each row should have the same number of items, as should each column. In this activity, children complete stem sentences to match the arrays. They can go on to use counters or cubes to make their own arrays to match given calculations.

**What is a row? How many rows can you see?**

**How many dots are there in the first row? Are there the same number of dots in each row?**

**How many rows are there?**

**What would this look like as an addition calculation?**

**How many dots are there altogether?**

**Repeat these questions for columns.**

**Adult-led activity:**

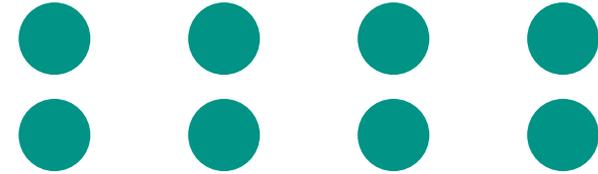
**Use counters to make arrays that show these calculations.**

$$5 + 5 + 5 + 5 =$$

$$10 + 10 + 10 =$$

**How many rows? How many columns? How many altogether?**

## Make Arrays

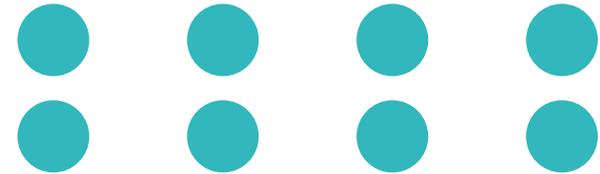


There are \_\_\_\_\_ dots in each row.

There are \_\_\_\_\_ rows.

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

There are \_\_\_\_\_ dots altogether.



There are \_\_\_\_\_ dots in each column.

There are \_\_\_\_\_ columns.

$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

There are \_\_\_\_\_ dots altogether.



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Children make and use arrays. They use repeated addition and stem sentences to support their learning. They learn that each row should have the same number of items, as should each column. In this activity, children apply what they know to match arrays with number sentences, tackle misconceptions and use an array to find a total. Children would benefit from using counters or cubes for the last question.

**What can you say about the rows and columns in this array?**

**Can you read the number sentences?**

**Do they match the array?**

**Are these both arrays? Can you explain your reasoning?**

**What is the same/different about these arrangements?**

**How many dots do you think there are altogether?**

**How can you work this out?**

**Can you use counters or cubes to show the array?**

**What would this look like as number sentences?**

**Can you describe an array for your friend to make?**

## Make Arrays



**Which calculation matches the array?**

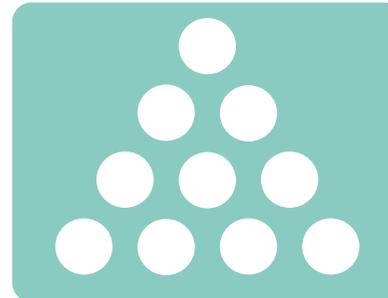
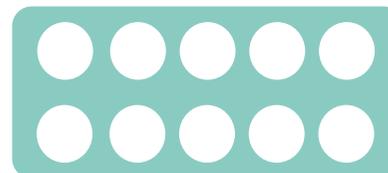


$$2 + 2 + 2 + 2 + 2 = 10$$

$$5 + 5 = 10$$



**Here are 2 more arrays with 10 dots. Are they right?**



**4 rows of dots.  
10 dots in each row.**

**How many dots altogether?**



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Children make and use arrays. They use repeated addition and stem sentences to support their learning. They learn that each row should have the same number of items, as should each column. In this activity, children explain and prove whether statements are correct or not. Children will need to use counters or cubes to investigate different possibilities.

**What does 'equal' mean?**

**Is it possible to make equal rows with 15 cubes?**

**Can you show me?**

**Are there three different ways to make arrays with 20 cubes?**

**Do you think there will be more ways than this or less?**

**What can you do to find out?**

**Is it possible to make an array with 13 sticks?**

**Can you explain your reasoning?**

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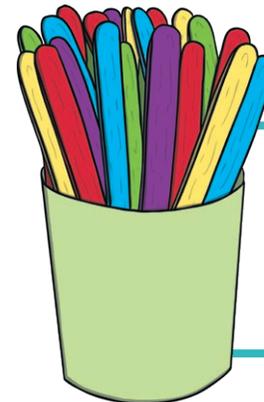


**Find 15 cubes. Can you make equal rows?**



There are 3 ways to make an array with 20 counters.

**Do you agree?**



**Can you make an array with 13 sticks?**

It must have more than 1 row.