

Diving into Mastery - Diving

Adult Guidance with Question Prompts

Children represent arrays in two ways using the multiplication symbol. They demonstrate their understanding that multiplication is commutative and can be done in any order. They draw an array to match a given multiplication.

Children may benefit from having some practical apparatus to use to recreate the arrays, such as counters or cubes. Encourage children to keep their own array picture very simple.

Which array represents seven lots of two?

How do you know?

Show me two ways that you could represent the array using the multiplication symbol.

Can you count in twos, fives or tens to find the total?

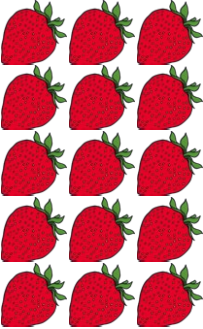
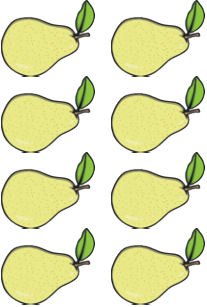


Can you draw an array to represent 5×4 ?

Does it matter if you draw five rows of four or four rows of five?

Use Arrays



Complete the table.

	$5 \times 3 = \square$	$3 \times \square = \square$
	$4 \times \square = \square$	$\square \times \square = \square$
	$\square \times \square = \square$	$\square \times \square = \square$
	$\square \times \square = \square$	$\square \times \square = \square$
	$5 \times 4 = \square$	$\square \times \square = \square$

Diving into Mastery - Deeper

Adult Guidance with Question Prompts

Children reason about multiplication and use arrays to prove if statements are true or not. Children may benefit from having some practical apparatus to use to recreate the arrays, for example counters or cubes. They could draw simple arrays.

Is 3×10 the same as 10×3 ?

How do you know?

Can you draw arrays to prove it?

How can you find the total?

Do you agree with Amira?

What is 2×2 ?

Can you show me with an array?

What is $2 + 2$?

Why are the answers the same?

Use Arrays



Do you agree or disagree with each child? Why?

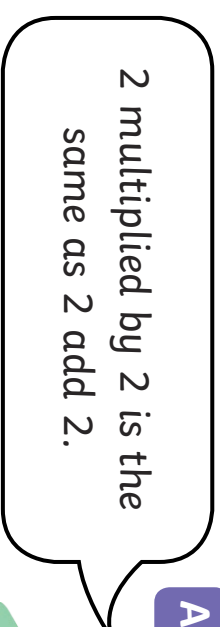
Use arrays to explain your answers.



James

3 multiplied by 10 is the same as 10 lots of 3.

Do you agree or disagree? Why?



Amira

2 multiplied by 2 is the same as 2 add 2.

Do you agree or disagree? Why?

Diving into Mastery - Deepest

Adult Guidance with Question Prompts

Children use arrays to work out which times table is being represented. They write calculations using the multiplication symbol and predict what other arrays in the sequence will look like.

Please note: In this activity, three rows of ten will be written as $10 \times 3 = 30$ and read as 'ten multiplied by three'. This is different to the way White Rose Maths write the calculation (3×10) but has been written this way to match the way multiplication is written in the year 4 multiplication tables check.

How many oranges are in the first array?

How many are in the second/third array?

How can we count them efficiently?

Which times table has Fran represented? How do you know?

Can you write the calculations to match these arrays?

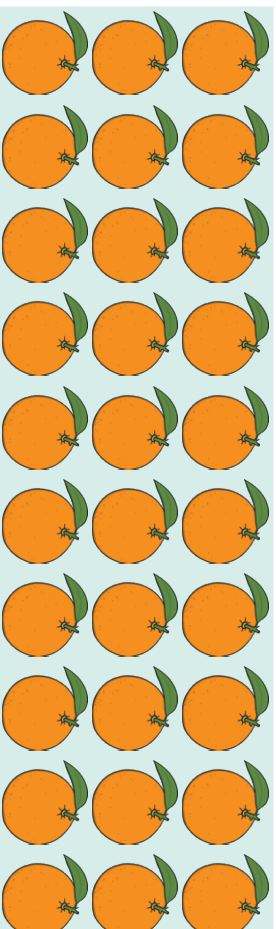
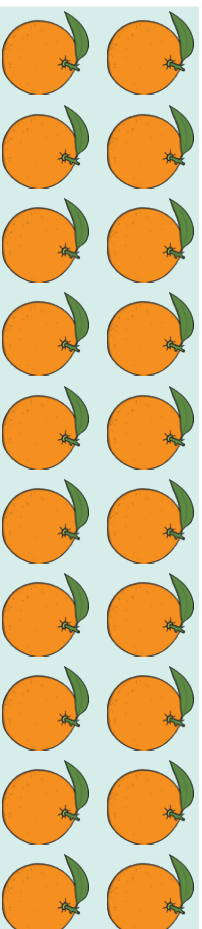
What will the fourth/fifth/sixth/tenth array be like?

Can you describe it?

Use Arrays



Fran has used arrays to represent a times table.



Which times table has Fran represented?

Write the calculations to match these three arrays.

How many oranges would be in the sixth array?

Write the calculation to match the tenth array.