Maths - Year 3
Calculating 6: Exploring multiplying through arrays

Key Vocabulary
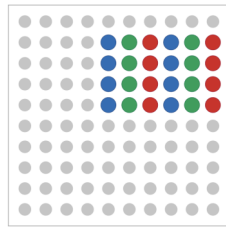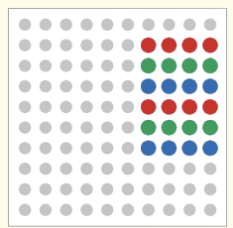
Product	The number resulting from multiplying two or more numbers together.
Array	A rectangular arrangement of objects or numbers in row and columns.
Commutative	When adding or multiplying two numbers, the answer will be the same no matter which order the numbers are in.
Equivalent, equivalence	Different ways of representing the same value.

Mathematical Skills

- Understand that multiplying can be represented by building arrays.
- Understand the commutative properties of multiplying.
- Understand that some number arrays can only have one row (prime numbers)
- Develop fluent recall of some multiplying facts.
- Represent an array with two multiplying sentences.
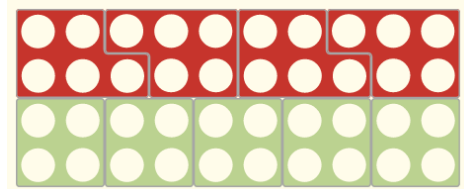- Work in an organised way to build arrays.

Mathematical Methods

- Create arrays and understand the related multiplication facts. Understand that multiplication is commutative.

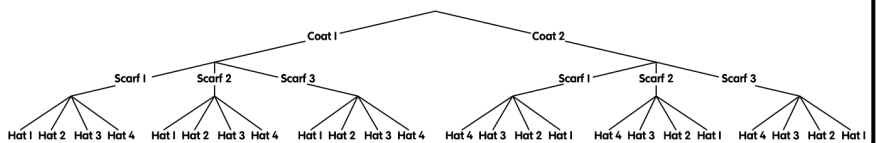

$6 \times 4 = 4 \times 6$

- Explore different ways of creating the same total (Commutative property)

E.g. $4 \times 5 = 5 \times 4$

- Write a multiplying sentence for a problem

E.g. $2 \times 3 \times 4 = 24$

Can you..?

- Write the multiplying sentences for this array.

- How many arrays can you make for 12?

- Solve the empty boxes:

$6 \times 1 = \boxed{} \times 6; \qquad \boxed{} \times 4 = \boxed{} \times 7; \qquad 10 \times \boxed{} = 4 \times \boxed{}$

- Does $2 \times 4 \times 10$ make the same product as $10 \times 2 \times 4$? Explain how you know.