

Maths - Year 4

Calculating 5: Developing fluency with multiplying facts to 12 x 12

Key Vocabulary

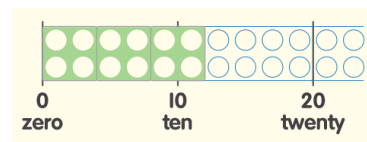
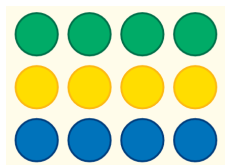
Product	The number resulting from multiplying two or more numbers together.
Commutative	When adding or multiplying 2 numbers, the answer will be the same no matter which order the numbers are in.
Dimensions	The measurements of a shape or object e.g. length, height, width, depth.
Area	An amount of surface.
Scale up/ scale down	Describes the amount by which something is increased or reduced to make it larger or smaller in proportion.

Mathematical Skills

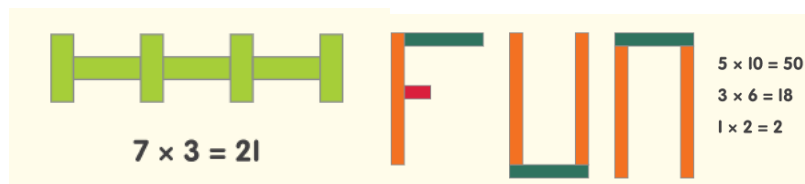
- Write multiplying sentences for problems involving repeated amounts.
- Find products of two numbers on multiplying squares.
- Write two multiplying sentences for an array and notice that, e.g. 4×6 and 6×4 give the same product.
- Recall multiplying facts to 12×12 .
- Explain the effects of multiplying by 0 and by 1.
- Illustrate a scaling problem with apparatus and a multiplying sentence.

Mathematical Methods

- Exploring a multiplying context e.g. 3×4 or 4×3 .



- Writing multiplying sentences.



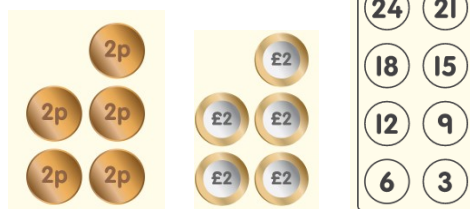
- Making a table for multiplying.

Items	1	2	3	4	5	6	7	8	9	10
A pair of socks	2	4	6	8	10	12	14	16	18	20
A set of cutlery	3	6	9	12	15	18	21	24	27	30
A pack of football cards	5	10	15	20	25	30	35	40	45	50

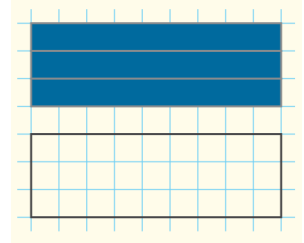
- Using arrays to explore the commutative property of multiplying.



- Improving fluency with multiplying facts.



- Making connections between multiplying and finding the area of rectangles.



- Using scaling in a recipe e.g. scaling a recipe for 1 person up to 3 people.

- Using a 'correspondence' structure to work out how many partners.

		Girls				
		a	b	c	d	e
Boys	1	1a	1b	1c	1d	1e
	2	2a	2b	2c	2d	2e
	3	3a	3b	3c	3d	3e
	4	4a	4b	4c	4d	4e
	5	5a	5b	5c	5d	5e
	6	6a	6b	6c	6d	6e

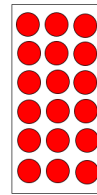
Can you..?

- How many different ways can you find to describe the number of counters in this array?

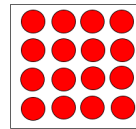


- Solve $\square \times 8 = 56$

- Who has the most counters? How do you know?



Tom



Sarah

- Write a number sentence to match the picture.

