My mathematical journey

What do I need to remember from before?

Place value (NP1)

Vectors on a number line (NP1)

Multiplying and dividing on paper and mentally (KS2)

Using rounding to check answers to calculations (KS2)

*Mathswatch clip in brackets

What will I learn about in this unit at CEC?

Multiplication and division with integers and decimals
(MW N15a, N15b, N16, N28a, N29a, N29b)

Area models for multiplication

Multiples and factors
(MW N10, N11)

Multiplying to stretch

Area and volume
(MW G20a, G21a)

Where does this lead?

Powers, roots and primes (NP4)

Order of operations (NP5)

Directed numbers (NP6)

Fractions (NP7)

Percentages (NP8)

Proportional reasoning (NP10)

Key words: what I need to say and write accurately

Word	Explanation
area	a measure of the space inside a two-dimensional shape
volume	a measure of the space inside a three-dimensional shape
multiple	you find the multiples of a number by multiplying it by an integer. e.g. the first six positive multiples of 7 are 7, 14, 21, 28, 35, 42
factor	a number which divides into another leaving no remainder. e.g. the factors of 12 are 1, 2, 3, 4, 6 and 12 because 1 × 12, 2 × 6 and 3 × 4 all equal 12

Fingertip facts: what I need to learn by heart

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144