



KIRF: I can recall all square numbers up to 122.

This half term, the children will be learning to recall square numbers up to 122 instantly. Square numbers have an odd number of factors and are the result of multiplying a whole number by itself.

A square number is a number multiplied by itself:

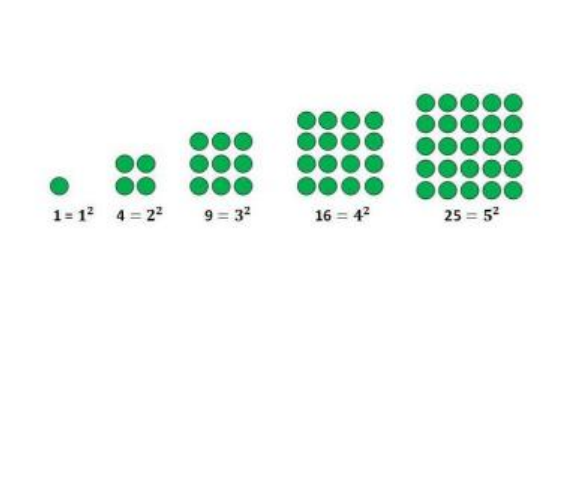
$1 \times 1 = 1$
 $2 \times 2 = 4$
 $3 \times 3 = 9$
 $4 \times 4 = 16$
 $5 \times 5 = 25$
 $6 \times 6 = 36$
 $7 \times 7 = 49$
 $8 \times 8 = 64$
 $9 \times 9 = 81$
 $10 \times 10 = 100$
 $11 \times 11 = 121$
 $12 \times 12 = 144$

Notation- A symbol. The notation 2 means squared e.g. 25 is 5 squared, $5 \times 5 = 25$
 Square number- The result when a number has been multiplied by itself.

Key Vocabulary :
 What is 8 squared?
 What is 7 multiplied by itself?
 Is 81 a square number?

What can this look like? Concrete, Pictorial Abstract:

x	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



1^2	1×1	1
2^2	2×2	4
3^2	3×3	9
4^2	4×4	16
5^2	5×5	25
6^2	6×6	36
7^2	7×7	49
8^2	8×8	64
9^2	9×9	81
10^2	10×10	100
11^2	11×11	121
12^2	12×12	144

Activity ideas:
The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day.

Dice roll- whatever the number lands on, square it

Cards- turn a card over, square it and call out the answer. Can you say the answer quicker than your partner?

Websites:
[TTrockstars](#) Children all have their username and password to practice in the "Garage" and the "Arena".
[MyMaths](#) Children will be set weekly home learning
[Hit the button - Square Numbers](#)
[Whack a square](#)