



Key Instant Recall Facts

Year 5: Spring 1

WALT: recall square numbers to 12, including their square roots, and cubed numbers up to 125

This KIRF will be tested at the start and end of the term. In school, your child will receive one, fifteen-minute, timetabled slot a week to practise this skill. **By the end of this half term, children in Year 5 should know the following facts and be able to recall them instantly:**

A **square number** is a number that is multiplied by itself. When we square a value, we always get a positive answer. e.g. 4×4 can be written as 4^2 .

This can be spoken as 'four squared' or 'four to the power of two'.

We call squared numbers, square because in terms of area, they create a square.



A **cube number** is found when we multiply a number by itself and then itself again.

e.g. $3 \times 3 \times 3$ can be written as 3^3

This can be spoken as 'three cubed' or 'three to the power of three'.

Top Tips:

The secret to success? Practise little and often! Can you learn these on your way to school? On a car journey? Or even at the breakfast table? You don't need to learn them all at once: start with those you are more confident with before tackling the rest. Why not practise whilst keeping active? You could throw and catch or kick a ball whilst learning them!

Play Games!

- ✓ Around the clock- think of a clock face. What are each of the numbers a square root of? E.g. 12: 12 is the square root of 144. What are each of the numbers squared?
- ✓ 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?

Useful Websites (games and information):

- <https://www.topmarks.co.uk/maths-games/hit-the-button>
- <https://mathszone.co.uk/using-applying/puzzles-and-logic-problems/splat-square100-primary-games-3/>
- <https://wordwall.net/resource/9919606/maths/whack-square>
- <https://whiterosemaths.com/homelearning/year-5/week-9-number-multiplication-division/>
- <https://wordwall.net/en-gb/community/square-and-cube-numbers>
- <https://www.bbc.co.uk/bitesize/topics/zyhs7p3/articles/z2ndsrd>
- <https://www.mathspad.co.uk/teach/worksheets/surds/squareCubeNumbersPuzzle.pdf>

Key Vocabulary:

Notation - A symbol. The notation 2 means squared e.g. 5² is 5 squared, $5 \times 5 = 25$

Square number - The result when a number has been multiplied by itself.

Square root - A square root of a number is a value that, when multiplied by itself, gives the number. e.g. the square root of 9 is 3.

Cube number - The result when a number has been multiplied by itself three times, e.g. $5 \times 5 \times 5 = 125$

Key Questions:

- What is 8 squared?
- What is 7 multiplied by itself?
- What is the square root of 144?