

Max's Magnificent Cube Numbers!

Master the 3rd Dimension: Think in Cubes with Max the Maths Monkey!

- A cube number is the result of multiplying a whole number by itself twice: for example, 2 cubed (2^3) is $2 \times 2 \times 2 = 8$.
- The small '3' written above and to the right of a number is called an index or exponent; it tells you to use the base number as a factor three times.
- The first four cube numbers are 1 (1^3), 8 (2^3), 27 (3^3), and 64 (4^3).
- Cube numbers grow very quickly! By the time you reach 10^3 , the total is 1,000.
- Unlike square numbers, which can sometimes be odd or even, cube numbers follow a pattern: if the base is even, the cube is even; if the base is odd, the cube is odd.

Did you know? Did you know? A cube number is named after the three-dimensional shape. If you have a cube with a side length of 3cm, its volume is $3 \times 3 \times 3 = 27\text{cm}^3$. This is why we call the result a 'cube'—it represents the space inside a perfect square-faced block!

Key vocabulary: Cube number · Exponent · Base · Volume · Product · Three-dimensional · Notation