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| **Key Instant Recall Facts** Y5 – Summer 2  |



I can find and recognise square, cube, prime and composite numbers

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| **Key facts and vocabulary** A **square number** is a number multiplied by itself. For example if we have 2 x 2, the result is 4, which is a square number. The next square number would be found by 3 x 3 (9 is the square number), and so on. It might also be written like this: 52 means 5 squared, so would be calculated by 5 x 5, so 52 = 25If we were to take some squared paper and colour a square, the first size would be 1 x 1, which gives 1 as a square number. Then you could colour a square that is 2 x 2, then 3 x 3 and so on. The total number of coloured squares would be the **square number**. |  |
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| If we know the square numbers, then we should also know their ‘**square root’**: the square number is 16, so the square root is 4; the square root of 25 is 5.A **cube number** is a number multiplied by itself and itself again, so 2 cubed (23) would be 2 x 2 x 2 = 8, and 3 cubed would be 3 x 3 x 3 = 27.To build a cube number you could use little cubes – to work out 4 cubed (43), you would first create a square of four by four cubes, then build it up so that it was four layers tall: 4 x 4 x 4 = 64.A **prime number** has only two factors – 1 and itself – it is not in any of the times tables (except 1 and itself). For example, 5 is a **prime number** because only 1 and 5 can divide exactly into it. The same is true of 2, 3, 7, 11, 13,17 and 19 (the prime numbers less than 20). Those numbers that are not ‘**prime**’ are ‘**composite**’. That is, they have three or more factors.Key Vocabulary:Factor, multiple, square, cube, prime, composite, root |

 **Taking it further:**



<https://nrich.maths.org/1150>

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| **Top Tips**  |
| The secret to successfully embedding knowledge is practising it **little** and **often**. Regularly return to the skills and incorporate into simple games and other activities.  Ideas: Chanting – write out the first twelve square numbers and repeat them as a sequence. Look at those numbers and say the square root of each as a sequence. Recite the prime numbers below 30.Quick questions: What are the first twelve square numbers? What is the third prime number? How many cubes are needed to build the second cube number?Think about: You have 50 little cubes, what is the largest cube you can make?Is 51 a prime number? How do you know?* Use websites for information and games:

<https://corbettmathsprimary.com/?s=cube+numbers><https://corbettmathsprimary.com/?s=square+numbers><https://www.bbc.co.uk/bitesize/topics/zyhs7p3/articles/z2ndsrd><https://corbettmathsprimary.com/?s=prime+numbers><https://www.topmarks.co.uk/maths-games/hit-the-button><https://www.transum.org/Maths/Activity/Prime/><https://www.mathsisfun.com/prime-composite-number.html> |