

Year 5 – Maths – Measurement: Volume

Key vocabulary

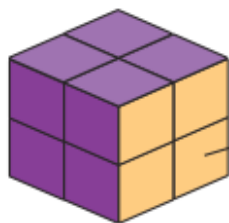
cubed
area
cross-section
prism
cube
cuboid
face
length
height
width
depth

Volume of cubes and cuboids

Volume is measured in cubed units. For example, **cm³**, **m³** and **km³**.

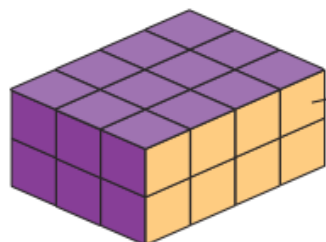
To calculate the volume of cubes and cuboids:

1. Calculate the area of the cross-section (one face).
2. Multiply the area of the cross-section (one face) by its depth.



$$\text{Area of cross section (face)} = 2\text{cm} \times 2\text{cm} = 4\text{cm}^2$$

$$4\text{cm}^2 \times 2\text{cm} = \text{Volume of } 8\text{cm}^3$$



$$\text{Area of cross section (face)} = 4\text{cm} \times 2\text{cm} = 8\text{cm}^2$$

$$8\text{cm}^2 \times 3\text{cm} = \text{Volume of } 24\text{cm}^3$$



Key questions

How do you find the volume of a shape?

If the volume of a shape is ____, what are its measurements?

Links to other learning

Year 6 - Recognise when it is possible to use formulae for area and volume of shapes; Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³].