

**What should I already know?**

- How to measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- How to find the area of rectilinear shapes by counting squares

What will I know by the end of the unit?

- Know what volume is
- How to compare volumes
- How to estimate volume
- How to estimate capacity

Vocabulary

Cubed	Prism	Face	Width
Area	Cube	Length	Depth
Cross-section	Cuboid	Height	

Investigate/Homework tasks

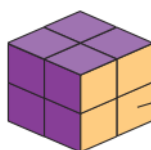
- Homework will be set by your teacher using google classroom
- You should complete at least 30 minutes of maths tasks using the website and log in provided by your teacher. Please attend help sessions if you do not have access to the internet at home
- Additional work you could complete:
 - Find out more about the meaning of the vocabulary list using <http://www.amathsdictionaryforkids.com/>
- To challenge yourself: Answer the key questions to deepen your knowledge

Key Information/Diagrams**Volume of Cubes and Cuboids**

Volume is measured in cubed units. For example, cm^3 , m^3 and km^3 .

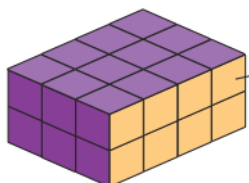
To calculate the volume of cubes and cuboids:

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



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

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



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

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





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Key Questions

Does your shape always have 4 centimetre cubes? Do they take up the same amount of space?
 How can this help us understand what volume is?

If the solid shapes are made up of 1 cm cubes, can you complete the table?
 Look at shape A, B and C. What's the same and what's different?

How is capacity different to volume?
 What does volume mean?
 What does cm^3 mean?

How can we find the volume of this shape?
 Which shape has the greatest volume?
 Which shape has the smallest volume?

Do we always have to count the cubes to find the volume?

What is the difference between volume and capacity?

Do you need to fill the whole box with cubes to estimate its volume?

Would unit to measure would you use to estimate the volume of the classroom?

Can I fill the tumbler so it is ___ full?
 Compare two tumblers, which tumbler has more/less volume?
 Do they have the same capacity?

Can we order the containers?

If I had ___ ml or litres, which container would I need and why?
 How much rice/water is in this container? How do you know?