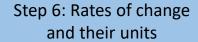
## **Year 10 Mathematics Learning Journey: Unit 10 - Rates**

Step 7 (H): Convert compound units

Explain why 1m<sup>3</sup> is not equal to 100cm<sup>3</sup>.



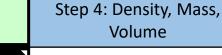
A machine fills 200 bottles in 8 minutes. How long will it take for the machine to fill 1500 bottles?

Step 5: Flow problems and their graphs

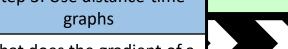
Sketch a graph of the depth of water against time for the container.

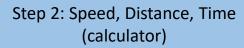
Step 3: Use distance-time graphs

What does the gradient of a straight line segment in a distance-time graph tell us?



The density of tin is 7260kg/m<sup>3</sup>. Calculate the volume of a piece of tin with a mass of 8kg.





Work out the average speed of an aeroplane which travels 5000 miles in 8 hours and 42 minutes.

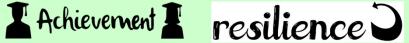


Step 1: Speed, Distance, Time (non-calculator)

How many minutes is 0.25 of an hour?













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