# Relationship between capacity and volume (litres and cm³)

MODULE 5 · MEASURES — LENGTH, AREA, VOLUME, MASS AND CAPACITY MEASURES

Capacity and volume are linked: **1 litre = 1000 cm³** and **1 ml = 1 cm³**.

→ A 2-litre carton holds **2000 cm³**.
→ A 250 ml glass is **250 cm³**.

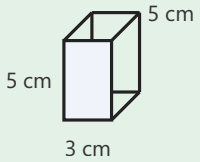
## HOW TO ANSWER TODAY

- **Convert units.** To a SMALLER unit → multiply. To a BIGGER unit → divide. Common factors: cm↔mm ×10, m↔cm ×100, km↔m ×1,000, kg↔g ×1,000, l↔ml ×1,000.
  250 cm → m: ÷ 100 = 2.5 m · 3.5 kg → g: × 1,000 = 3,500 g
- **Volume.** Volume = length × width × height. Answer in cubic units (cm³, m³).
  5 × 4 × 3 = 60 cm³

## WARM-UP

1. Mr Ó Sé measures the corridor from the 5th class door to the yard exit and finds it is **18 m** long. He wants to put a strip of safety tape along the whole length in centimetres. How many cm of tape does he need?

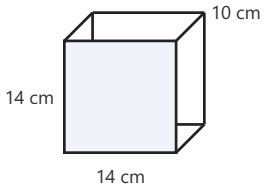
   Convert 18 m to cm.

2. 


   Saoirse's 5th class robotics group builds a small battery pack shaped like a cuboid. It measures **3 cm** long, **5 cm** wide and **5 cm** high. What is the volume of the battery pack?

## PRACTICE

1. In the maths corner, Oisín fills a measuring jug with **3000** cm³ of water for a capacity activity. He needs to record the amount in litres, using the rule that **1 litre** = **1000** cm³. How many litres has he poured into the jug?

2. 


   5th class are building a wooden storage box to hold the pieces for the giant chess board painted on the yard. The box is **14 cm** long, **10 cm** wide and **14 cm** high. What is the volume of the box?