

Relationship between capacity and volume (litres and cm³)

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

HOW TO ANSWER TODAY

- **Convert units.** To a SMALLER unit → multiply. To a BIGGER unit → divide. Common factors:
 $\text{cm} \leftrightarrow \text{mm} \times 10$, $\text{m} \leftrightarrow \text{cm} \times 100$, $\text{km} \leftrightarrow \text{m} \times 1,000$, $\text{kg} \leftrightarrow \text{g} \times 1,000$, $\text{l} \leftrightarrow \text{ml} \times 1,000$.
 $250 \text{ cm} \rightarrow \text{m}: \div 100 = 2.5 \text{ m}$ · $3.5 \text{ kg} \rightarrow \text{g}: \times 1,000 = 3,500 \text{ g}$
- **Volume.** Volume = length $\times$ width $\times$ height. Answer in cubic units (cm³, m³).

★ STRETCH PROBLEMS

- 1 On their sponsored walk through the Wicklow Mountains, 6th class cover **5955 m** in total. How many kilometres have they walked?
- 2 Tadhg fills a water barrel with **25000** cm³ of rainwater for the school garden. Given that **1 litre** = **1000** cm³, how many litres are in the barrel?
- 3 Aoife fills the classroom fish tank with **40000** cm³ of water. She knows that **1 litre** equals **1000** cm³. How many litres of water are in the tank?
- 4 The 6th class are chalking a border around the edge of the school yard. The border measures **7993 cm** in length. How many metres is that?
- 5 The school is putting up a new storage shed for the PE gear. The shed is a cuboid measuring **4.2 m** long, **4.5 m** wide and **2.1 m** high. What is its volume?

