

Capacity: estimate and measure in l and ml with a jug

MODULE 4 · MEASURES — LENGTH, WEIGHT AND CAPACITY MEASURES

HOW TO ANSWER TODAY

- **Read a ruler.** Each big mark = 1 cm = 10 mm. Each little mark = 1 mm.
 $3\text{ cm} + 7\text{ mm} = 37\text{ mm} = 3.7\text{ cm}$
- **Convert units.** To a SMALLER unit → multiply. To a BIGGER unit → divide. Common factors:
 $\text{cm} \leftrightarrow \text{mm} \times 10$, $\text{m} \leftrightarrow \text{cm} \times 100$, $\text{km} \leftrightarrow \text{m} \times 1,000$, $\text{kg} \leftrightarrow \text{g} \times 1,000$, $\text{l} \leftrightarrow \text{ml} \times 1,000$.
 $250\text{ cm} \rightarrow \text{m}: \div 100 = 2.5\text{ m}$ · $3.5\text{ kg} \rightarrow \text{g}: \times 1,000 = 3,500\text{ g}$
- **Estimate gap.** Subtract the smaller from the bigger to find how far off the estimate was.
 Estimated 15 cm, real 12.5 cm → 2.5 cm off

★ STRETCH PROBLEMS

- Oisín measures the length of his hurley grip using the class ruler. The end of the grip sits **17 cm** and **7 mm** from the start of the ruler. What is the reading in cm?
- Cian and his classmates lay out a path of edging around the new raised beds in the school garden. The path measures **78 m** in total. How many centimetres is that?
- Aoife is helping stitch a class quilt and guesses one strip is **139 cm** long. When she measures it with the tape, it turns out to be **146 cm**. By how much is her estimate off?
- Tadhg designs a class crest for the Gaelic football jersey and guesses the width of the banner strip will be **87 cm**. When he measures it with the metre stick, it is really **67 cm**. By how much is his estimate off?
- Tadhg is measuring a strip of card for the GAA finals day banner. When he lines it up against the ruler, the end sits **28 cm** and **4 mm** from the start. What is the reading in cm?

● INVESTIGATE

How much water in a day?

Estimate how much water **you** use in one school day (drinking, washing hands, lunch). Record each amount in ml or l, then rename so you can **add them all**. About how many full 1-litre jugs is that? What would change your total the most?
