

Renaming length units (m $\leftrightarrow$ cm, cm $\leftrightarrow$ mm)

MODULE 4 · MEASURES — LENGTH, WEIGHT AND CAPACITY

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:
 $\text{cm} \leftrightarrow \text{mm} \times 10$, $\text{m} \leftrightarrow \text{cm} \times 100$, $\text{km} \leftrightarrow \text{m} \times 1,000$, $\text{kg} \leftrightarrow \text{g} \times 1,000$, $\text{l} \leftrightarrow \text{ml} \times 1,000$.
 $250\text{ cm} \rightarrow \text{m}: \div 100 = 2.5\text{ m}$ · $3.5\text{ kg} \rightarrow \text{g}: \times 1,000 = 3,500\text{ g}$

 STRETCH PROBLEMS

- Oisín measures a leaf for his nature project. On his ruler the tip of the leaf sits **24 cm** and **4 mm** from the start. What is the reading in cm?
- Tadhg measures his new hurley and finds the bás is **31 cm** long. He wants to write the length in millimetres for his craft project. How many millimetres is **31 cm** ?
- For Seachtain na Gaeilge, 4th class have **94 m** of green, white and orange bunting to hang along the school corridor. How many centimetres of bunting is that?
- Oisín measures the width of the new class crest for the Gaelic football jersey with a metre stick. The edge of the crest reaches **30 cm** and **3 mm** along the metre stick. What is the reading in cm?
- Aoife measures out **87 m** of ribbon to make bunting for the school summer fair. She needs to write the length in centimetres for her order form. How many centimetres is **87 m** ?

● INVESTIGATE

Measure the classroom

Estimate, then measure, the length and width of your classroom. Record each length in **metres and centimetres**, and also renamed in centimetres only. Work out the perimeter. Would the whole class fit shoulder-to-shoulder along one wall? Show how you decided.