Measures word problems (length, weight, capacity)

MODULE 4 · MEASURES — LENGTH, WEIGHT AND CAPACITY MEASURES

HOW TO ANSWER TODAY

- **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
- **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
- **Read a ruler.** Each big mark = 1 cm = 10 mm. Each little mark = 1 mm.
  3 cm + 7 mm = 37 mm = 3.7 cm

STRETCH PROBLEMS

1. Tadhg is drawing a chalk box on the wall-ball court in the yard. He estimates the box is **46 cm** wide, then measures it with a metre stick and finds it is **37 cm** wide. By how much is his estimate off?

2. Oisín marks out the long-jump run-up for the yard athletics track. His measuring stick is **25 cm** long. How many millimetres is that?

3. For the school play, Aoife estimates that the ribbon on her papier-mâché mask is **95 cm** long. When she measures it with a metre stick, it is really **102 cm**. By how much is her estimate off?

4. For the school robotics project, 4th class programme a small robot to record how far it travels. The map on the screen shows a journey of **74 km**. To scale the route onto their tiny track, they need this distance in centimetres. How many centimetres is **74 km**?

5. Cian measures the length of a leaf for his nature project with a ruler. The tip of the leaf reaches **19 cm** and **3 mm** along the ruler. What is the reading in cm?

MEASURES