

Weight – estimate and weigh in kg and g on a scale

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

★ STRETCH PROBLEMS

- 1 Cian guesses the height of the classroom bookshelf as **165 cm**, then measures it with a tape as **183 cm**. By how much is his estimate off?
- 2 Cian is painting a mural of the club crest for the school Gaelic football team. He estimates the mural will be **169 cm** wide, then measures the finished space as **181 cm**. By how much is his estimate off?
- 3 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?
- 4 For the GAA finals day, 4th class map out a **41 km** sponsored cycle route on a chart. They want to mark the total distance in centimetres for their display. How many centimetres are in **41 km**?
- 5 Cian measures a strip of card for a World Book Day display and the ruler shows it reaches **18 cm** and **4 mm** from the start. What is the length of the strip in cm?

● INVESTIGATE

Kilogram detective

Find three things that weigh about **1 kg**, three much lighter, and three much heavier. Record each weight in kilograms or grams and rename at least four of them the other way (for example 1 kg 200 g = 1,200 g). How did you judge the ones you could not put on a scale?
