Weight — estimate and weigh in kilograms and grams

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

STRETCH PROBLEMS

1. Cian estimates that the school noticeboard is **171 cm** wide. He then measures it with a metre stick and finds it is actually **178 cm** wide. By how much is his estimate off?
   > A pupil estimates a length as 171 cm, then measures it as 178 cm. By how much is the estimate off?

2. Cian's family drove **60 km** from Cork to visit his cousins in Waterford. He wants to write the distance in centimetres for his maths copy. How many cm is **60 km**?
   > Convert 60 km to cm.

3. The after-school crafts club is making a long kite tail from ribbon. The ribbon they need measures **27 m** in total. How many millimetres of ribbon is that?
   > Convert 27 m to mm.

4. The 4th class team cycle a total of **26 km** to and from the Cumann na mBunscol blitz at the county grounds. The coach asks them to write the distance in metres for the school noticeboard. How many metres did they cycle?
   > Convert 26 km to m.

5. The Camogie coach paces out a sprint lane under the floodlights, measuring **94 m** along the sideline. She wants to mark the lane with cones every metre and needs the length in centimetres for the training plan. How many centimetres is **94 m**?
   > Convert 94 m to cm.