

Length – metres; choosing the right unit

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: $\div 100 = 2.5$ m · 3.5 kg → g: $\times 1,000 = 3,500$ g

★ STRETCH PROBLEMS

- In PE class, Aoife estimates the length of the long jump mat as **139 cm**. She then measures it with a tape and finds it is actually **146 cm**. By how many centimetres is her estimate off?
- 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.
- 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?
- 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.
- Oisín is drawing a homemade Snakes and Ladders board for art class. He estimates the side of the board to be **28 cm**, then measures it with a ruler and finds it is really **35 cm**. By how many centimetres is his estimate off?
 A pupil estimates a length as 28 cm, then measures it as 35 cm. By how much is the estimate off?