Capacity: estimate and measure in l and ml with a jug

MODULE 4 · MEASURES — LENGTH, WEIGHT AND CAPACITY MEASURES

HOW TO ANSWER TODAY

- **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
- **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

STRETCH PROBLEMS

1. Oisín measures the length of his hurley grip using the class ruler. The end of the grip sits **17 cm** and **7 mm** from the start of the ruler. What is the reading in cm?
2. Cian and his classmates lay out a path of edging around the new raised beds in the school garden. The path measures **78 m** in total. How many centimetres is that?
3. Aoife is helping stitch a class quilt and guesses one strip is **139 cm** long. When she measures it with the tape, it turns out to be **146 cm**. By how much is her estimate off?
4. Tadhg designs a class crest for the Gaelic football jersey and guesses the width of the banner strip will be **87 cm**. When he measures it with the metre stick, it is really **67 cm**. By how much is his estimate off?
5. Tadhg is measuring a strip of card for the GAA finals day banner. When he lines it up against the ruler, the end sits **28 cm** and **4 mm** from the start. What is the reading in cm?

INVESTIGATE

How much water in a day?

Estimate how much water **you** use in one school day (drinking, washing hands, lunch). Record each amount in ml or l, then rename so you can **add them all**. About how many full 1-litre jugs is that? What would change your total the most?