

Measurement investigation with precision

MODULE 5 · MEASURES — LENGTH, AREA, VOLUME, MASS 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

★ STRETCH PROBLEMS

- 1 Before Camogie training under the floodlights, Aoife estimates the length of a goalpost shadow as **146.5 cm**. She then measures it with a tape and gets **149 cm**. By how many centimetres is her estimate off?
- 2 Tadhg is drawing a scale plan of the classroom on grid paper. He estimates the length of one bookshelf as **51.6 cm**, then measures it with his ruler as **60.3 cm**. By how much is his estimate off?
- 3 On the school tour to Glendalough, Oisín finds a smooth stone by the lake and guesses it is **65.7 cm** long. When he measures it with his ruler back at the coach, it is actually **59.8 cm**. By how much is his estimate off?
- 4 Tadhg is painting a banner for the GAA county finals day. He estimates the width of the painted stripe will be **103 cm**, but when he measures it after painting it is **87 cm**. By how much is his estimate off?
- 5 Tadhg estimates the height of the service line on the wall-ball court in the yard at **155 cm**. When he measures it with the long tape, it is actually **166 cm**. By how many centimetres is his estimate off?

● INVESTIGATE

How accurately can you measure?

Measure the same object (say, your desk) three times. Do you get the same answer each time? What causes the small differences? How could you make your measuring more reliable?
