

Measures investigation – estimate then measure around the room

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
- **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

WARM-UP

- 1 Cian is making a scale drawing of the school yard during art class. He measures a path on his drawing and the ruler reading sits 3 cm and 6 mm from the start of the ruler. What is the reading in mm?

A ruler reading sits 3 cm and 6 mm from the start of the ruler. What is the reading in mm?
- 2 For an Engineers Week woodwork project, Tadhg estimates the length of a timber strip as 24 cm. When he measures it with a ruler, the strip is actually 19 cm. By how much is his estimate off?

A pupil estimates a length as 24 cm, then measures it as 19 cm. By how much is the estimate off?

PRACTICE

- 1 Oisín collects a horse chestnut leaf for the autumn art display in 4th class. He measures it and finds it is 14 cm long. How many millimetres long is the leaf?

Convert 14 cm to mm.
- 2 In PE class, Oisín estimates the length of the long-jump mat as 187 cm. He then measures it with a tape and finds it is actually 198 cm. By how many centimetres is his estimate off?

CHALLENGE

- 1 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.
- 2 Tadhg is making a homemade Snakes and Ladders board for the wet-day box in 4th class. He marks the side of one square on the board, then measures along his ruler from the start to the pencil mark. The reading sits 14 cm and 8 mm from the start of the ruler. What is the reading in cm?