

Choosing and converting metric units of length

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

Metric units of length step by $\times 10$, $\times 100$, $\times 1000$. Choose the unit that suits the size, and convert by multiplying or dividing.

- 1 km = 1000 m; 1 m = 100 cm; 1 cm = 10 mm.
- 2.5 m = 250 cm; 3400 m = 3.4 km.

CONVERT 2.45 M TO CM, AND 3200 M TO KM

- 1 m → cm: $\times 100 \rightarrow 2.45 \times 100 = 245$ cm.
- 2 m → km: $\div 1000 \rightarrow 3200 \div 1000 = 3.2$ km.

HOW TO ANSWER TODAY

- **Convert units.** To a SMALLER unit → multiply. To a BIGGER unit → divide. Common factors: cm ↔ mm $\times 10$, m ↔ cm $\times 100$, km ↔ m $\times 1,000$, kg ↔ g $\times 1,000$, l ↔ ml $\times 1,000$.
 250 cm → m: $\div 100 = 2.5$ m · 3.5 kg → g: $\times 1,000 = 3,500$ g

MATCH-UP

Match each length to an equal length.

- a. 1 km
- b. 1 m
- c. 1 cm
- d. 2.5 m
- e. 3000 m

- 1. 250 cm
- 2. 3 km
- 3. 100 cm
- 4. 1000 m
- 5. 10 mm

PRACTICE

- 1 Saoirse measures the string holding the bird-feeder outside the 5th class window. It is 495 cm long from the branch to the feeder. How long is the string in metres?
 Convert 495 cm to m.
- 2 For STEM week, Oisín weighs the lollipop sticks and glue he is using to build a model bridge. The materials come to 981 g on the kitchen scales. What is this mass in kilograms?
 Convert 981 g to kg.

CHALLENGE

- 1 Saoirse cycles from granny's farmhouse to the far field to check on the calves. The lane runs 3290 m from the gate to the field. How many kilometres is that?
 Convert 3290 m to km.
- 2 5th class at St Brigid's measured the total length of ribbon left on the spools in the classroom craft store and got 7628 cm in total. The teacher wants the answer written in kilometres for the stocktake sheet. How many kilometres is 7628 cm?
 Convert 7628 cm to km.