

Kilometres and distance; estimating longer lengths

WHAT THIS LESSON TEACHES

A kilometre (km) is a long unit of length equal to 1,000 metres, used for distances too far to pace out. To change km to m, multiply by 1,000; to change m to km, divide by 1,000.

→ A sign 'Gaillimh 8 km' means Galway is $8 \times 1,000 = 8,000$ m away.

→ 3,000 m is 3,000 divided by 1,000 = 3 km.

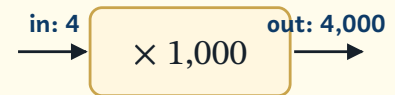
MODEL THIS ON THE BOARD

CHANGE 4 KM TO METRES

① A signpost shows **4 km**. Remember **1 km = 1,000 m**.

② Multiply the kilometres by 1,000: **$4 \times 1,000$** .

③ **$4 \times 1,000 = 4,000$** , so 4 km = **4,000 m**.



DISCUSSION STARTER

REFLECT How do you decide whether centimetres, metres or kilometres fit a length best?

ANSWER KEY

a) 4,000 m

b) 7,000 m

c) 5 km

Q1: 7,000 m

Q2: 2,000 m

Q3: 6,000 m

Q4: 9 km

a) Always — 1 m equals 100 cm by the renaming relationship taught.

b) Always — 1 cm equals 10 mm by the renaming relationship taught.

c) Always — Rename 200 cm as 2 m; 2 m is longer than 1 m.

d) Always — Going m to cm multiplies by 100, cm to mm multiplies by 10; the number always increases.

EXTENSION SHEET · STRETCH ANSWERS

S1: 26000 m

S2: 7 cm

S3: 36000 mm

S4: 4100000 cm

S5: 8700 cm

Investigation: Irish road-sign distances — open-ended; scan pupils' working for valid solution paths rather than a single answer.