

Renaming weight (kg ↔ g); reading scales

WHAT THIS LESSON TEACHES

Kilograms are used for heavier things, and one kilogram is exactly 1,000 grams. To change kilograms to grams we multiply by 1,000; to change grams back to kilograms we divide by 1,000.

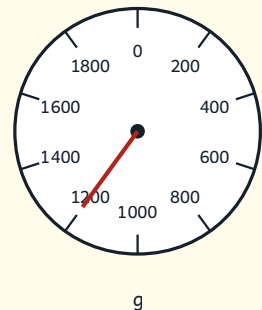
→ 3 kg = 3,000 g

→ 4,000 g = 4 kg

MODEL THIS ON THE BOARD

RENAME KG AND G

- 1 The 1 kg is whole kilograms, so multiply by 1,000: $1 \times 1,000 = 1,000$ g.
- 2 Add the extra 200 g: $1,000$ g + 200 g = $1,200$ g.
- 3 The scale needle points to $1,200$ g.



DISCUSSION STARTER

REFLECT

When you rename a unit, do you multiply or divide — and how do you remember which way?

ANSWER KEY

a) 4,000 g

b) 5 kg

c) 1,200 g

Q1: 3,000

Q2: 6 kg

Q3: 3,450 g

a) Always — Standard conversion: 1 kg = 1,000 g.

b) Never — 1 kg = 1,000 g, so the 1 kg bag is twice as heavy.

c) Sometimes — True with the same unit, but a heavy object in kilograms can show a smaller number than a light one in grams.

d) Never — An apple is a few hundred grams — kilograms suit heavier items like a bag of sugar.

EXTENSION SHEET · STRETCH ANSWERS

S1: 25.1 cm

S2: 19.4 cm

S3: 14.8 cm

S4: 400 cm

S5: 4200000 cm

Investigation: Kilogram detective — open-ended; scan pupils' working for valid solution paths rather than a single answer.