

Renaming weight (kg ↔ g); reading scales

CURRICULUM ALIGNMENT

MEA.MSR.3b

identify the relationship between equivalent units of measurement, and rename measures using equivalent units.

INTERACTIVES Unit Converter · challenge, display, explore

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.

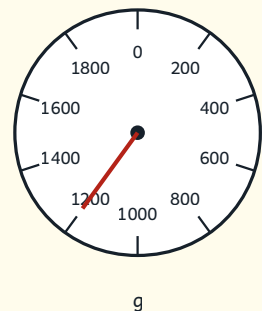
→ 3 kg = 3,000 g

→ 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

Spot: 1 kg = 1,000 g, not 100 g. So 2 kg = $2 \times 1,000 = 2,000$ g.

EXTENSION SHEET · STRETCH ANSWERS

S1: 400 cm

S2: 4200000 cm

S3: 6000000 cm

S4: 14.2 cm

S5: 19.4 cm

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