

The kilogram: the shop's unit of weight

CURRICULUM ALIGNMENT

MEA.MSR.2

compare, approximate and measure length, weight, capacity and area using appropriate instruments and record using appropriate units of measurement.

INTERACTIVES [Balance Scales · display, explore](#)

WHAT THIS LESSON TEACHES

The shop's unit of weight is the kilogram. A bag of sugar labelled 1 kg weighs exactly one kilogram, and we compare other things to it on a balance.

→ A lunchbox that makes the sugar-bag pan rise is lighter than 1 kg.

→ A schoolbag that makes the sugar-bag pan fall is heavier than 1 kg.

MODEL THIS ON THE BOARD

WEIGHING A TIN OF BEANS

- 1 Place the 1 kg sugar bag on the right pan (the side marked **10**).
- 2 Place the tin of beans on the left pan.
- 3 The left pan rises and the reading is smaller than **10**, so the tin is lighter than 1 kg.
- 4 Write: tin of beans is lighter than 1 kg.

LESSON ARC

Open with the 1 kg sugar-bag photo and three quick hands-up votes (schoolbag, lunchbox, shoe). On the balance-scales interactive, walk three weighings against the bag at mark 10 — tin of beans, dictionary, welly — naming heavier, lighter, or about 1 kg. Pupils take turns predicting the same labels for four objects, then draw one heavier and one lighter item in the copybook. Class Challenge sorts water bottle, flour, coat and football, then lines them lightest to heaviest. Close on why every shop's 1 kg bag must match.

TEACHING MOVES

1. **Getting Started.** Flash the sugar-bag photo as pupils settle. Take three fast hands-up votes only — schoolbag, lunchbox, shoe — and name kilogram once. No long debate; move straight to the balance.
2. **Watch and Notice.** Run the three weighings in order: tin (mark 4), dictionary (mark 10), welly (mark 7). After each settle, revoice the label — lighter than 1 kg, about 1 kg, lighter than 1 kg. Stress that mark 10 means the sugar bag, not 'ten kilograms'.
3. **Try It Together.** Keep the right pan locked at mark 10. Before every settle, freeze and take a class prediction. Rotate four pupils: tin near 4, welly near 7, dictionary near 10, schoolbag near 16. Accept only the three labels — heavier than 1 kg, lighter than 1 kg, about 1 kg.
4. **Write heavier and lighter in your copy.** Leave the stems heavier than 1 kg and lighter than 1 kg on the board. Drawing plus a label counts as finished — this is not a spelling test. Glance the row only; no marking.
5. **Class Challenge.** One pupil at the board per object; class confirms the spoken label before you move on. After matching: water bottle 5 lighter, flour 10 about 1 kg, coat 14 heavier, football 4 lighter. Close by lining the four lightest to heaviest together: football, water bottle, flour, coat.

6. What Did We Notice?. Pose the two-shop puzzle. Head off ‘because it is heavy’ — push toward same label, same weight, fairness. Revoice: so a kilogram is the same in every shop.

COMMON MISCONCEPTIONS

⚠ Pupils treat the pan numbers as kilograms — ‘the tin is 4 kg’ because the mark shows 4.

Point back at the sugar bag sitting on mark 10: that mark means one kilogram, not ten. Marks below 10 are lighter than 1 kg; marks above are heavier. Re-run the tin weighing and revoice lighter than 1 kg.

⚠ Pupils say ‘big’ or ‘small’ instead of heavier or lighter — a welly looks big so they call it heavier than 1 kg.

Freeze the pan mid-settle and ask which side sinks. Revoice only with weight words: the welly side rises, so the welly is lighter than 1 kg even though it looks big.

⚠ Pupils think any bag labelled 1 kg could weigh anything — the shop label is just a name, not a promise. Use the maths-talk two-shop problem. If one labelled bag sinks far below the sugar bag, the label is wrong. A true 1 kg bag must sit level with ours.

DIFFERENTIATION

EMERGING

- On Try It Together, stick to the two clear extremes first — tin (much lighter) and schoolbag (much heavier) — before the near-level dictionary.
- Allow a drawing only under the board stems; the pupil points to heavier or lighter while you scribe the phrase.

DEVELOPING

- After Class Challenge, hide the mark numbers and ask pupils to predict from the pan tilt alone before revealing the digit.
- Add one extra classroom object from the optional pass-around set and sort it into the lightest-to-heaviest line.

PROFICIENT

- After the four-object line-up, ask: name something that would sit between the water bottle and the flour bag — how do you know? Copybook jot only.
- Challenge: if mark 10 is 1 kg, what would mark 20 feel like on the balance against one sugar bag? Predict, then test on the interactive if time.

✓ **Cross-curricular:** Link to a class shop role-play — price a real 1 kg flour bag in euro and check its label matches the sugar-bag weight.

ANSWER KEY

Scaffold: visual check on the page

Q1: lighter

Q2: about 1 kg

Q3: heavier

a) **Always** : The 1 kg label is the shop unit and means the bag is one kilogram.

b) **Sometimes** : Some schoolbags tip the pans down and some do not, depending on what is inside.

c) **Always** : The lesson sets the sugar-bag mark at 10 to stand for 1 kg.

d) **Sometimes** : Some tins may sit near the 1 kg mark and others are much lighter.

EXTENSION SHEET · STRETCH ANSWERS

S1: a metre stick

S2: a metre stick

S3: a metre stick

S4: a metre stick