

Measuring round-up: pick the tool and the unit, module review

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

Measurement Rulers · display

Balance Scales · explore

Drag Sort · challenge

WHAT THIS LESSON TEACHES

To measure well we pick the right tool and the right unit. Short lengths need a ruler and centimetres, longer lengths need a metre stick and metres, weight needs a balance and kilograms, and capacity needs a litre jug and litres.

→ A pencil about 12 cm long is measured with a ruler in centimetres.

→ A schoolbag is weighed with a balance in kilograms.

MODEL THIS ON THE BOARD

TOOL FOR THE FISH TANK

- 1 The job is to find how much water the classroom fish tank holds.
- 2 How much a container holds uses the unit **litres**.
- 3 The matching tool is the **litre jug**.
- 4 So we pick the litre jug and litres.

LESSON ARC

Open with the four tools on the IWB — ruler, metre stick, balance, litre jug — and four jobs: eraser, yard path, schoolbag, fish tank. Take hands-up matches without correcting yet. Walk estimate-then-measure on the pencil and crayon: three whole-class cm guesses, then zero-align and read. Show the litre jug full-to-the-mark beside a milk carton, and wait for kilogram on the sugar bag. Pupils try the balance pans together, write cm · m · kg · litre in copy, then run the Class Challenge job-to-tool cards.

TEACHING MOVES

1. **Getting Started.** Point at each tool once, then name the four jobs. Take three hands-up matches only — do not correct. Park wrong matches with ‘we’ll settle that one in a minute’ so the lesson can earn each answer.
2. **Watch and Notice.** Before each ruler reveal, collect three whole-class length guesses in centimetres. Then point zero → straight edge → end reading, and ask ‘was our guess close?’ For capacity, hold the litre jug full-to-the-mark beside a milk carton and wait for litre; for the sugar bag, wait for kilogram. Keep the gloss plain: heavy → kg, liquid → litre.
3. **Try It Together.** One pupil works the balance interactive; the class predicts heavier, lighter, or about the same as 1 kg before each tip. Run the three prompts in order: about half a kilogram, 1 kg on both pans, then more than 1 kg on the right. Re-voice the class language out loud before the next card.
4. **Class Challenge.** Keep the board brisk — pupils take turns dragging each job card, the class checks, then move on. Before each card lands ask ‘which unit and tool fit this job — and why?’ Use the three short banks in class; leave the eight-card and near-miss banks if minutes remain.

5. **What Did We Notice?.** Ask how they choose unit and tool before measuring. Listen for size-of-the-thing first (small → cm/ruler, long → m/metre stick, heavy → kg/balance, liquid → litre/jug). Re-voice: ‘we look at the job, then pick what fits.’ If someone names guessing first, re-voice that too.

COMMON MISCONCEPTIONS

⚠ Pupils reach for the metre stick to measure an eraser, or the ruler to measure the yard path — they pick the tool they know, not the one that fits the size.

Hold the eraser beside both tools on the board. ‘Which tool is longer than the job, and which is far too short?’ Rebuild the match: small length → cm and ruler; long stretch → m and metre stick.

⚠ Pupils shout a measure without guessing first, or treat the guess as the final answer and skip the check.

Freeze before the ruler reveal. ‘Three careful guesses in cm — then we measure.’ After the reading, ask was our guess close? so estimate and measure stay as two separate beats.

⚠ Pupils call the milk carton ‘a kilogram’ or the sugar bag ‘a litre’ — weight and capacity blur because both feel like ‘how much’.

Stand the litre jug and the balance side by side. Point: liquids pour into the jug → litre; heavy things sit on the pans → kg. Have the class sort the milk carton and sugar bag again out loud.

DIFFERENTIATION

EMERGING

- On the Class Challenge cards, pre-name the unit on two of the four jobs so pupils only choose the matching tool.
- Stay with length jobs (eraser, pencil, crayon) at the board first; bring weight and capacity once cm and m feel steady.

DEVELOPING

- After a correct match, ask ‘why not the other length tool?’ so they justify ruler vs metre stick, not just pick.
- Give a near-miss card — e.g. a full fish tank — and ask whether litre still fits or whether they need more than one jug.

PROFICIENT

- Pose a job with no card yet: ‘measure the water in the class sink’ — they name unit, tool, and a sensible estimate before anyone measures.
- On the copybook line, add one sentence under each unit: when I would not use this unit.

✂ **Cross-curricular:** Link to SESE science — estimate then measure a classroom plant’s height in cm and the water in its pot in litres.

ANSWER KEY

a) 12 cm

b) 8 cm

c) 4 cm

Q1: ruler, cm

Q2: metre stick, m

Q3: balance, kg

Q4: ruler, cm

Q5: ruler, cm; balance, kg

a) **Never** : A ruler and centimetres measure a crayon's length.

b) **Never** : Doors are long so we use metres and a metre stick.

c) **Always** : How much a container holds is measured in litres.

d) **Sometimes** : Metres suit long things like the classroom wall, but not short things like a crayon.

EXTENSION SHEET · STRETCH ANSWERS

S1: a metre stick

S2: a metre stick

S3: a metre stick

S4: a metre stick