

Length: metres; choosing the right unit

CURRICULUM ALIGNMENT

MEA.MSR.3a

compare, estimate and measure length, weight, capacity, area and volume using appropriate instruments and record and communicate appropriately.

INTERACTIVES Measurement Rulers · display

WHAT THIS LESSON TEACHES

A metre is a unit of length about as long as a metre stick. Use metres for long things in the school yard and centimetres for short things.

→ The classroom is about 7 metres long; you would not measure that in centimetres.

→ A pencil is measured in centimetres; the corridor is measured in metres.

MODEL THIS ON THE BOARD

CHOOSING METRES OR CENTIMETRES

- 1 Look at the object or distance.
- 2 Decide if it is long like the yard or short like a crayon.
- 3 Choose metres for long distances and centimetres for short lengths.

DISCUSSION STARTER

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

LESSON ARC

Stand a real metre stick beside the door and ask which unit suits the corridor. On the IWB the metre ruler lines a whole metre against the stick, and a corridor takes two sticks end to end — hold the real stick against the screen for these. Hold up your classroom ruler for the short examples: a desk under a metre, a pencil tiny. Groups then measure a bench, the space's width, and a 10-metre wall, laying the stick end over end. A copybook sort and an estimate-then-measure Class Challenge consolidate before the metre-and-centimetre link next lesson.

TEACHING MOVES

1. **Getting Started.** Stand the real metre stick beside the door as pupils settle and ask whether the corridor suits centimetres or metres. Take three hands-up answers, not call-outs, and steer toward 'metres are easier for big things' — don't name the rule yet.
2. **Watch and Notice.** The screen carries only the metre-scale examples — hold the real stick against it as one metre lines up and a corridor takes two sticks. For the short half, hold up your classroom ruler: 'a desk is less than one metre stick; a pencil is tiny.' Don't move on until the class can say which examples suit metres and which suit centimetres.
3. **Try It Together.** Split into three groups, each with a metre stick, all measuring the bench, width and 10-metre wall in parallel so everyone gets a hands-on turn inside eleven minutes. Circulate and watch for the stick lifting before the next mark is made — that's the slip that loses a whole metre.
4. **Sort the lengths in your copy.** Pupils head two copybook columns 'metres' and 'centimetres' and sort the six lengths. Walk the room glancing — if a hurley lands in centimetres, ask that pupil to picture how many metre sticks long it is.

5. **Class Challenge.** Keep the estimate-then-measure rhythm brisk across the three groups: whole-metre estimate written first, then measure and compare. Push for a guess even when pupils are unsure, and name out loud when their estimates start landing closer.
6. **What Did We Notice?.** Ask how pupils decide between ruler and metre stick. Listen for 'the size of the object' rather than 'the tool nearest me', and revoice a strong answer: 'so long things suit the metre stick, short things suit the ruler.'

COMMON MISCONCEPTIONS

⚠ Pupils lift the metre stick to reposition it before marking where it ended, so the next length starts from a guess and they lose a whole metre.

Stop the group and demonstrate keeping a finger or foot on the far end of the stick before lifting. Re-measure that length together, counting each whole metre aloud as the stick goes down.

⚠ Pupils decide bigger is always better and want to measure a finger or a crayon in metres.

Hold the metre stick beside the finger so the class sees the finger is a tiny sliver of one metre, awkward to name. 'For short things the ruler gives us a number we can actually say.'

DIFFERENTIATION

EMERGING

- Give these pupils only the Short and Medium lengths in the Try It Together round so they count fewer whole metres before swapping.
- Mark the floor with chalk or tape where each metre stick ends, so the pupil places the stick to a visible line rather than holding the position in their head.

DEVELOPING

- After the copybook sort, ask which of the six lengths sits closest to the borderline between metres and centimetres, and why a book is the tricky one.
- On the Class Challenge, ask pupils to record how many whole metres their estimate was off by, not just whether it was close.

PROFICIENT

- While the groups measure, ask: a wall is 7 metres and a bit — how would you describe that 'bit' without a centimetre number yet? Let them wrestle with it as a bridge to the renaming lesson, then jot their idea in the copybook.

✚ **Cross-curricular:** Tie to PE — pupils pace out the length of a Gaelic football pitch in the yard and estimate it in whole metres before checking.

ANSWER KEY

a) m

b) cm

c) cm

Q1: metres

Q2: centimetres

Q3: centimetres

Q4: metres

Q5: metres

Q6: metres

a) **Always** : The yard is a long distance.

b) **Never** : A crayon is short so use centimetres.

c) **Sometimes** : It depends on the exact bench length.

d) **Always** : Metres suit long school yard lengths.

EXTENSION SHEET · STRETCH ANSWERS

S1: 7 cm

S2: 7 cm

S3: 8800000 cm

S4: 27000 mm

S5: 16 cm

Investigation: Estimate, measure, choose — open-ended; scan pupils' working for valid solution paths rather than a single answer.