

Length: metres and centimetres; choosing the unit

CURRICULUM ALIGNMENT

MEA.MSR.3a

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

MEA.MSR.3b

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

INTERACTIVES Measurement Rulers · display

WHAT THIS LESSON TEACHES

Centimetres (cm) are small units marked along your ruler, best for short things you can hold or that sit on a desk. Metres (m) are longer units, best for tall or long things like doors and walls. Remember 1 m is the same as 100 cm.

- A pencil is about 18 cm long.
- A classroom door is about 2 m tall.
- A bookshelf 1 m 20 cm tall is the same as 120 cm.

MODEL THIS ON THE BOARD

BOOKSHELF IN M OR CM

- 1 The bookshelf is **1 m 20 cm** tall.
- 2 Swap the metre: 1 m = **100 cm**.
- 3 Add the rest: **100 cm + 20 cm = 120 cm**.
- 4 It is taller than a metre, so metres is clearer: **1 m 20 cm**.

120 cm	
100 cm	20 cm

DISCUSSION STARTER

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

ANSWER KEY

- a) cm
b) m
c) 1 m and 20 cm

Q1: cm

Q2: m

Q3: cm

Q4: 145

a) **Always** : 1 m equals 100 cm by the renaming relationship taught.

b) **Always** : 1 cm equals 10 mm by the renaming relationship taught.

c) **Sometimes** : Number increases only when renaming to a smaller unit; it decreases when renaming to a larger unit.

d) **Never** : Rename 100 cm as 1 m; the lengths are equal, so one is not longer.

EXTENSION SHEET · STRETCH ANSWERS

S1: 7 cm

S2: 2500000 cm

S3: 9,300,000 cm

S4: 29000 mm

S5: 8800000 cm

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