

Lesson 51 MEASURES

Measures word problems (length, weight, capacity)

CURRICULUM ALIGNMENT

MEA.MSR.3b

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

NUM.OPS.3

understand and apply flexibly the four operations; and the relationships between operations.

INTERACTIVES Word Problem · challenge, display, explore

WHAT THIS LESSON TEACHES

Read the problem and find the signal word. 'Altogether' and 'joined' mean add; 'left', 'used' and 'poured out' mean subtract. Always change to the same unit before you work.

→ Ribbons 45 cm and 30 cm joined → $45 + 30 = 75$ cm.

→ 1 m and 25 cm: change 1 m to 100 cm first, then work in cm.

MODEL THIS ON THE BOARD

FLOUR LEFT IN THE BAG

① A bag holds **1 kg** of flour and **250 g** is used, so subtract to find what is left.

② Rename so the units match: **1 kg = 1000 g**.

③ Subtract: **1000 g – 250 g = 750 g**.

$$\begin{array}{r} 1000 \\ - 250 \\ \hline 750 \end{array}$$

DISCUSSION STARTER

REFLECT

Which part of a measures word problem do you check first — the unit or the operation?

ANSWER KEY

a) 100 cm

b) 1000 ml

c) 700 g

Q1: 75 cm

Q2: 75 cm

Q3: 1500 ml

a) Always : 'Joined' is an add signal word.

b) Never : 'Poured out' means something is taken away, so you subtract.

c) Always : You can only combine measures that are in matching units.

d) Sometimes : Only when the two measures are given in different units.

EXTENSION SHEET · STRETCH ANSWERS

S1: 9 cm

S2: 250 mm

S3: 7 cm

S4: 7400000 cm

S5: 19.3 cm