

Measuring around the home

L.O. To find the length, volume and mass of everyday objects and write them as decimals.

Mild: Measure to the nearest mm, to the nearest 10g and if possible to the nearest 10ml

Spicy: Convert measures to decimals to complete calculations

Hot: Estimate length/capacity/mass before measuring. Estimate with improved accuracy as you work through the task.

Need to know

Centi means 100th, as in 100 centimetres in a metre.

Milli means 1000th, as in 1000 millilitres in a litre.

Kilo means 1000, as in 1000 grams in 1 kilogram.

We can write measures as in smaller or larger units or a mixture of them both. If we use larger units, the number before the decimal point tells us how many complete metres, litres or kilograms we have.

length	$167\text{cm} = 1.67\text{m} = 1.67\text{m}$
capacity	$658\text{ml} = 0\text{l } 658\text{ml} = 0.658\text{l}$
mass	$2806\text{g} = 2\text{kg } 806\text{g} = 2.806\text{kg}$

Copy and complete this table to show different ways of writing measures.

	Written in mixed units	Written as a decimal
455cm	m cm	4.55m
ml	l 333ml	l
g	kg g	6.315kg

In this lesson, we are going to measure items around the house. If you don't have a particular item, don't worry, just swap it for something else. Everyone will have different answers, but we will look at "average" answers in the answer sheet.

Measuring different items will help you get a feel for what the units of measure mean in "real life".

Measure the length of

- a) A pencil
- b) A pen
- c) A reading book
- d) A cushion
- e) A rubber

If you put all your items in a line, end to end, how long would they be?

If you laid them on one of the tables in your house, would they be longer or shorter than the table? How much longer/shorter?

Measure the capacity of

- a) A mug
- b) A glass
- c) The largest pan in the kitchen
- d) A cereal bowl
- e) Your school water bottle

What is the total capacity of these items?

If you filled all these items up from a 10 litre washing up bowl, how much water would be left in the bowl?

Measure the mass (weight) of

- a) An apple
- b) A pair of trainers
- c) A T-shirt
- d) A full bottle of water
- e) Your reading book

If you had all these items in your school bag, how much mass would you be carrying to school?

Remember to include the mass of your bag!