



Year 3 – Maths – Measurement: Mass and Capacity

Key vocabulary

mass

gram

kilogram

capacity

volume

millilitre

litre

lighter

heavier

Links to other learning

Year 2 - Choose and use appropriate standard units to estimate and measure mass (kg/g) and capacity (litres/ml) to the nearest appropriate unit, using scales and measuring vessels; Compare and order varying masses, volumes/capacities and record the results using $>$, $<$ and $=$.

Year 4 - Convert between different units of measure.

Key questions

How many grams are in a kilogram?

Can you sort the objects into two groups: ones we'd measure in g and ones we'd measure in kg?

Could you estimate the mass of a _____?

Why might an apple that weighs 2kg be pointing to different points on different scales?

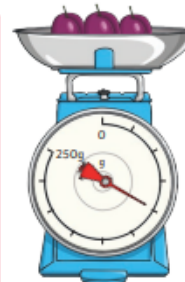
Grams and kilograms

twinkl visit [twinkl.com](https://www.twinkl.com)

Scales can be used to measure grams.

A gram is a unit of measurement that is used to measure the mass of something.

Grams can be written as **g**.



Scales can be used to measure kilograms.

A kilogram is a unit of measurement that is greater than a gram. It is also used to measure the mass of something.

Kilograms can be written as **kg**.



$$1000\text{g} = 1\text{kg}$$

To compare mass, we can use the words 'heavier' and 'lighter'.

Capacity is the amount of liquid a container can hold.

Volume is how much liquid is in the container.

Measuring cylinders can be used to measure smaller volumes.

Smaller volumes are measured in millilitres.

Millilitres can be written as **ml**.



Measuring jugs can be used to measure larger volumes.

Greater volumes are measured in litres.

Litres can be written as **l**.

$$1000\text{ml} = 1\text{l}$$

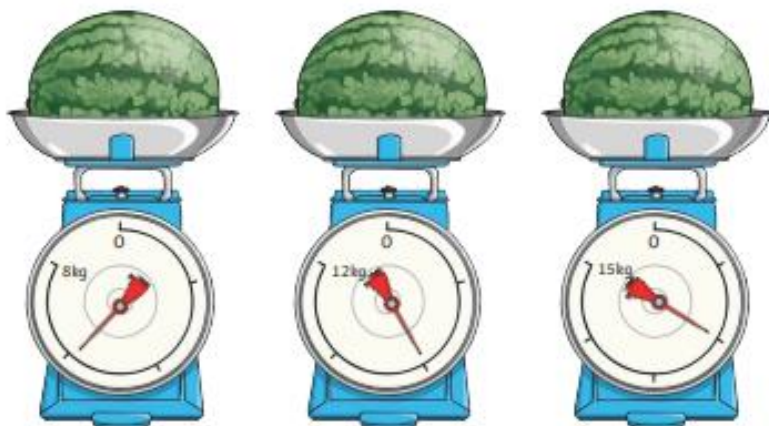
To compare capacities, we can use the word 'full'.



Reading scales

Mass

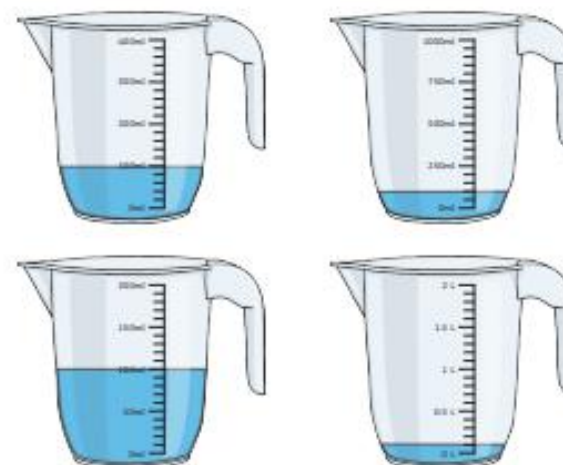
Each of the melons has a mass of 6kg but the arrows are all pointing at different points on the scales. This is because each of the measuring scales have different increments marked on them.



Always look carefully at how the numbers on the scales increase when reading a measurement.

Capacity

Measuring containers all have different capacities.



Each of these containers contain the same volume of 100 millilitres but have different capacities and scales. Always look carefully at how the numbers on the scales increase when reading a measurement.

Add and Subtract Mass

$$600\text{g} + 500\text{g} = 1100\text{g} = \mathbf{1\text{kg } 100\text{g}}$$

$$1\text{kg} - 300\text{g} = 1000\text{g} - 300\text{g} = \mathbf{700\text{g}}$$



Add and Subtract Capacities

$$800\text{ml} + 400\text{ml} = 1200\text{ml} = \mathbf{1\text{l } 200\text{ml}}$$

$$1\text{l } 300\text{ml} - 200\text{ml} = \mathbf{1\text{l } 100\text{ml}}$$

