

YR2 MEASUREMENT KNOWLEDGE ORGANISER

Key Concepts

- choose and use appropriate standard units to estimate and measure

length/height in any direction

mass

temperature

capacity (litres/ml)

to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels

- compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$

Key Vocabulary

- metres/centimetres (m/cm)
- kilograms/grams (kg/g)
- litres/millilitres (l, ml)
- Degrees Celsius ($^{\circ}\text{C}$)
- more than/less than
- taller/tallest
- longer/longest
- shorter/shortest
- heavier/lighter/heaviest/lightest
- warm/cold/warmer/colder

Choose Appropriate Standard Units

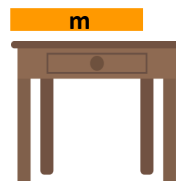
Moving on from YR1's non-standard units, in YR2 the focus is on standard units of measure.

Length

Using metres helps to develop an understanding of the measurement of larger objects within and beyond the classroom.



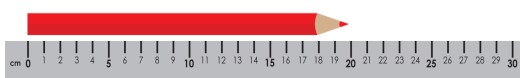
The table is longer than 1 metre.



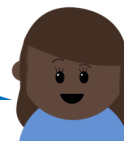
The next step is to recognise that a metre is not an appropriate way to measure smaller items.

Introducing a ruler at this stage supports this further. There is a skill involved with measuring using a ruler.

To be accurate, the object needs to be lined carefully with the 0, not the end of the ruler.



The pencil is 20cm long.



After measuring with both metres and centimetres, decisions can be made about the suitability of equipment to measure.



I will measure the glue stick using a ruler because it is a lot shorter than a metre.

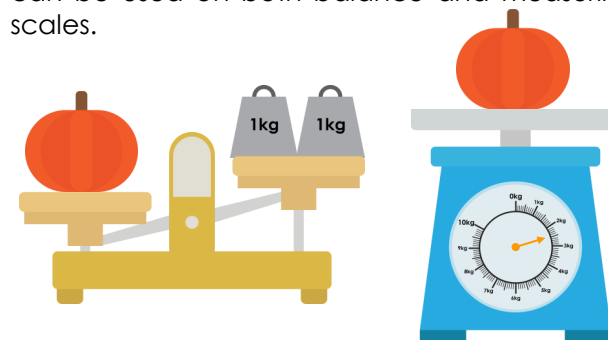


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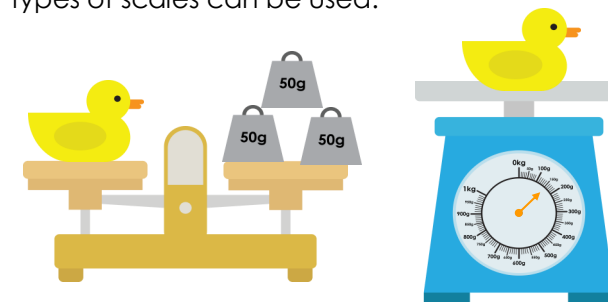
Mass

In a similar way to length, mass is explored with larger units first and approximate measurements can be used on both balance and measuring scales.



The melon weighs more than 2kg.

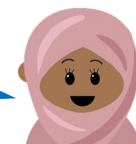
To develop this skill further, smaller units can be introduced to weigh lighter objects. Again, both types of scales can be used.



The duck weighs 150g.

Following on from this work, it is then possible to choose the appropriate unit of measure to weigh items based on an estimation of how heavy the object is.

I will weigh myself in kg because I am heavy.



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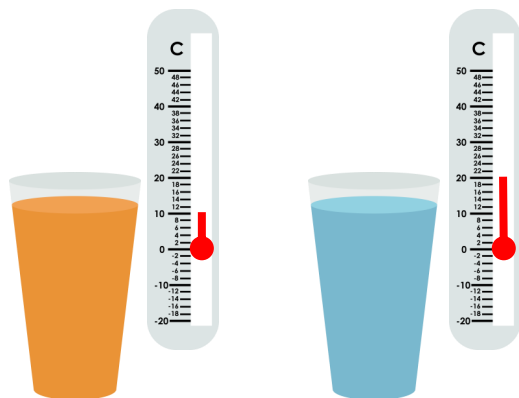
In Year 2, there is no expectation for any units of measure to be mixed.

For example, describing an object as 2m and 20cm in length is not necessary. Children work using metres or centimetres, so the object would simply be described as more than 2m.

Temperature

Using thermometers, scales are explored further. The unit 'degrees Celsius' is used as the standard unit. The higher the number on the scale, the warmer the item being measured.

Comparisons can be made between different objects.



The orange juice is 10 °C.
The water is 20°C.
The water is warmer than the orange.

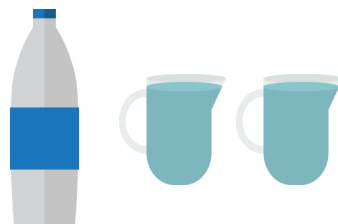
Capacity and Volume

The standard unit of volume, used to begin with, is a litre. This can be used to fill other vessels to describe their capacity.

For example

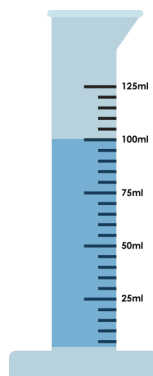


The cup contains less than 1l of milk.

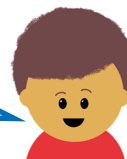


The bottle has a capacity of 2 litres.

Measuring in millilitres is a more accurate way of measuring which involves reading of scales.



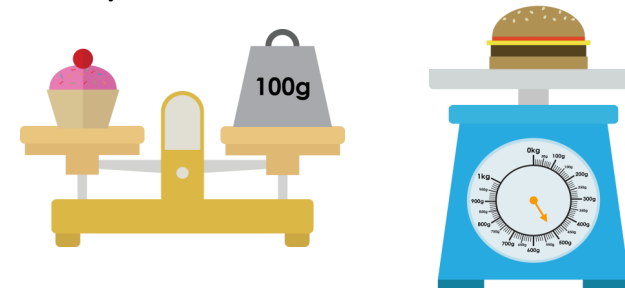
The volume is 100 millilitres.



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Compare and Order

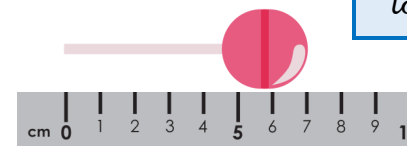
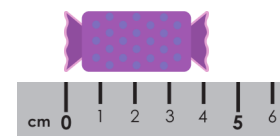
Once skills of measuring have been secured, it is possible to combine them with the skill of using <, > and = learnt earlier in the year to compare two objects:



The burger is heavier than the cake.



Ordering involves measuring more objects and then organising according to the results:



Sweet	Length
chew	4cm
jelly bean	2cm
lollipop	7cm

jelly bean < chew < lollipop