

Comparing Grams and Kilograms



Which is heavier – 3500g or 3kg?

It is difficult to answer this question because the masses are measured in different units.
It is best to convert one of the measurements into the same unit as the other.

What fact could we use to help us convert between grams and kilograms?

1 kilogram = 1000 grams

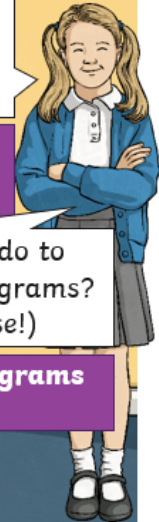
What calculation do we do to convert from kilograms to grams?

We multiply the number of kilograms by 1000.

What calculation do we do to convert from grams to kilograms?
(Hint: this is the inverse!)

We divide the number of grams by 1000.

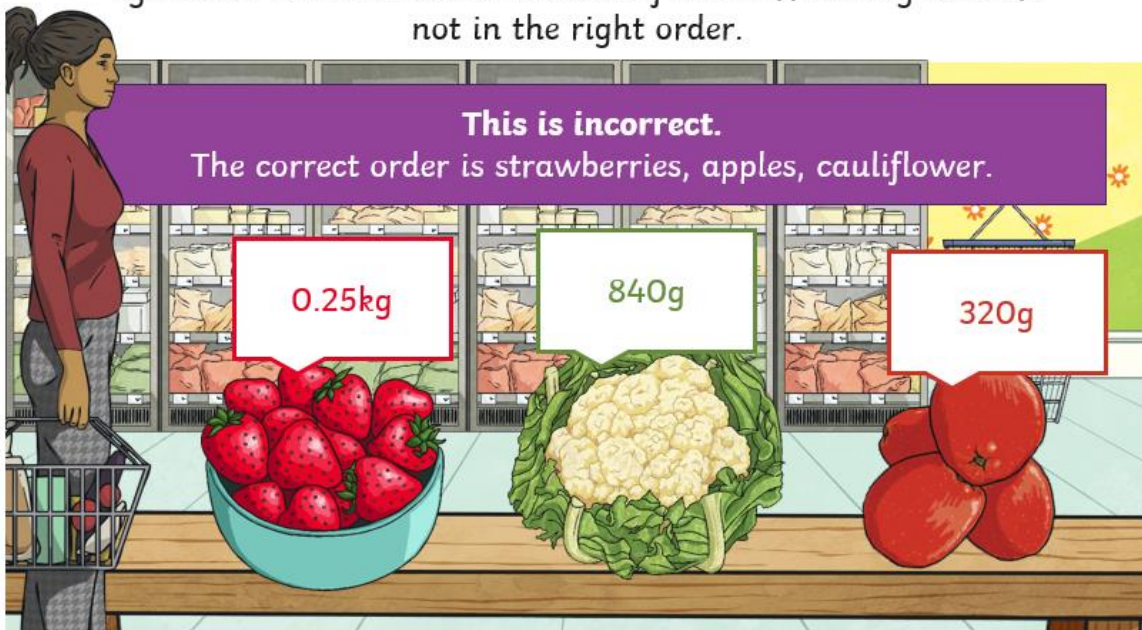
$3500\text{g} = 3.5\text{kg}$ or $3\text{kg} = 3000\text{g}$
3500g is heavier than 3kg.



Order, Order!



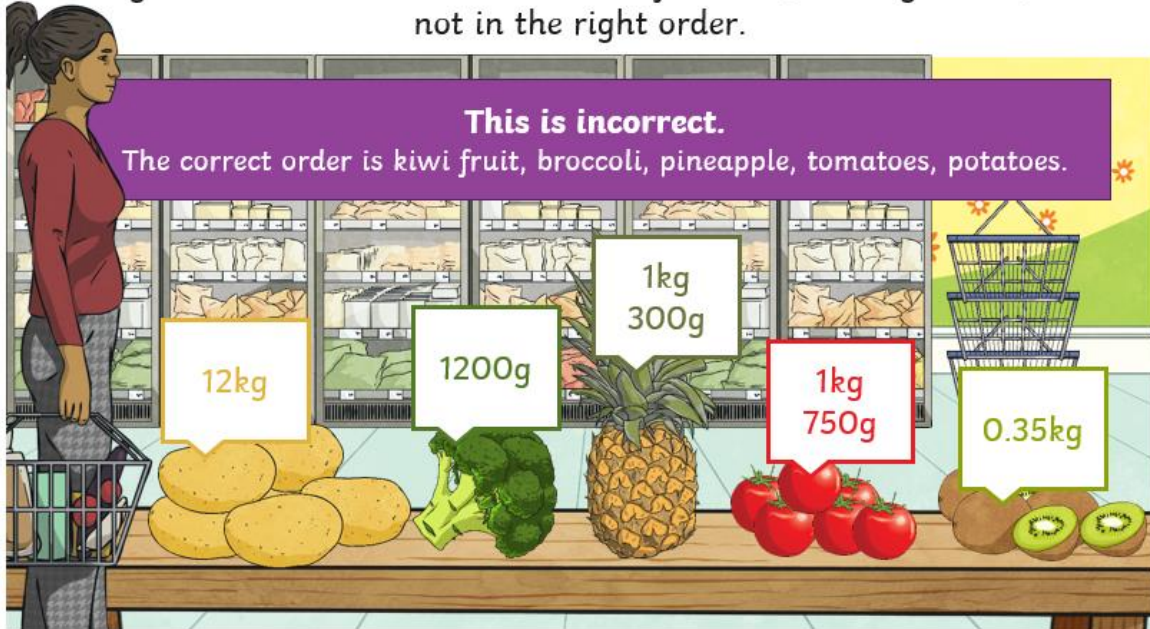
Helen has ordered the items on each shelf in her shop from lightest to heaviest. Check each shelf and correct any that are not in the right order.



Order, Order!



Helen has ordered the items on each shelf in her shop from lightest to heaviest. Check each shelf and correct any that are not in the right order.



Compare It – Millilitres and Litres



? How is comparing grams and kilograms similar to comparing millilitres and litres?

! Hint: Think about how many grams are in 1 kilogram and how many millilitres are in 1 litre.

There are 1000 grams in 1 kilogram and 1000 millilitres in 1 litre. We multiply or divide by 1000 to convert grams and kilograms to the same unit, so we can do the same to convert millilitres and litres.

Compare It – Millilitres and Litres



Use $<$, $>$ or $=$ to compare these measurements.

7.3l

$<$

7400ml

In this comparison, we could change litres into millilitres by multiplying by 1000:
 $7.3\text{l} = 7300\text{ml}$

Alternatively, we could change millilitres into litres by dividing by 1000:
 $7400\text{ml} = 7.4\text{l}$

Compare It – Millilitres and Litres

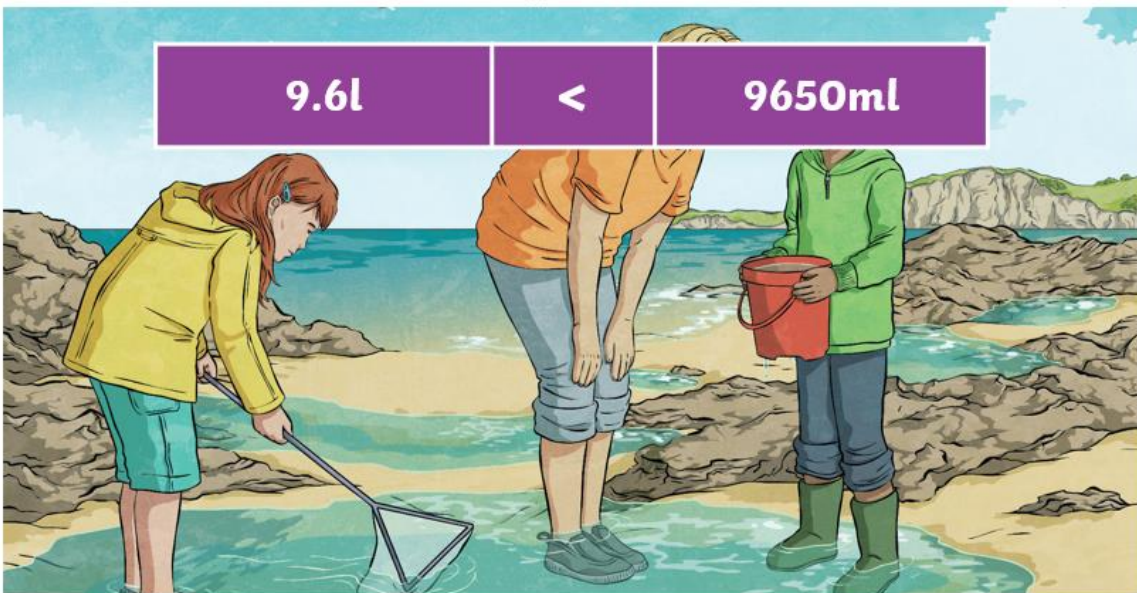


Use $<$, $>$ or $=$ to compare these measurements.

9.6l

$<$

9650ml



Now you have a try:



Comparing and Ordering Measurements of Mass, Volume and Capacity

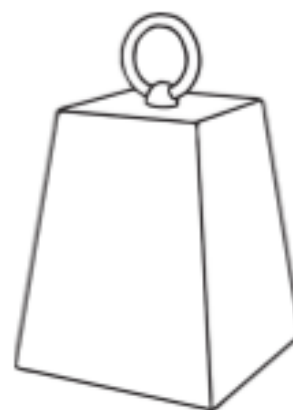
I can compare measurements of mass, volume and capacity.



Mass

1. In each pair, draw a circle around the greater mass.

a)	500g	1.2kg
b)	3kg 750g	3800g
c)	1.9kg	1600g
d)	4kg 200g	4.3kg
e)	2.8kg	2500g
f)	2850g	2.9kg



2. Order these measurements from smallest to greatest mass.

a)	2.6kg	2550g	3kg
	smallest		greatest

b)	5kg	4.9kg	4500g
	smallest		greatest

c)	8.7kg	5800g	5kg
	smallest		greatest



Comparing and Ordering Measurements of Mass, Volume and Capacity

Volume and Capacity



750ml



2l



330ml



1.25l

3. Write $<$, $>$ or $=$ in each row of the table to compare the capacity of the containers:

washing-up liquid bottle		teapot
drinks can		lemonade bottle
lemonade bottle		washing-up liquid bottle and teapot
washing-up liquid bottle		2 drinks cans

4. Joanna records the volume of water she drinks each day for three days. Order the days according to how much she drank.

Monday	Tuesday	Wednesday
1750ml	2.5l	1.9l

greatest		smallest

5. If Joanna had drunk 200ml more on Monday, would this have changed the order? If so, write the new order:

greatest		smallest