Year 6 - Measure

Place these units of metric measure in the correct area of the chart.

metres (m)
kilometres (km)
kilograms (kg)
millilitres (ml)
grams (g)
litres (l)
millimetres (mm)
tonnes (t)
centimetres (cm)

Length	
Mass	
Capacity and Volume	

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kilometres (km)
kilograms (kg)
millilitres (ml)
grams (g)
litres (l)
millimetres (mm)
tonnes (t)
centimetres (cm)

Length	millimetres (mm) centimetres (cm) metres (m) kilometres (km)
Mass	grams (g) kilograms (kg) tonnes (t)
Capacity and Volume	millilitres (ml) litres (l)

Starter

- Find a tape measure or a ruler (or both)

Can you measure the length of:

Did you use the same unit of measurem!ent for all the items?

Think about which out of mm, cm and m might be most suitable

- A dinner plate

- An oven

- The bristles on your toothbrush

- A fridge

- A toaster

Choosing units of measurement

What is the most appropriate unit of measurement for:

- The mass of an apple
- The amount of water in a bath
- The mass of a dog
- The distance of a marathon
- The length of a fingernail
- The volume of a drink in a can

Choosing units of measurement

What is the most appropriate unit of measurement for:

- The mass of an apple = grams
- The amount of water in a bath = litres
- The mass of a dog = kilograms
- The distance of a marathon = kilometres of miles
- The length of a fingernail = millimetres
- The volume of a drink in a can = millilitres or centilitres
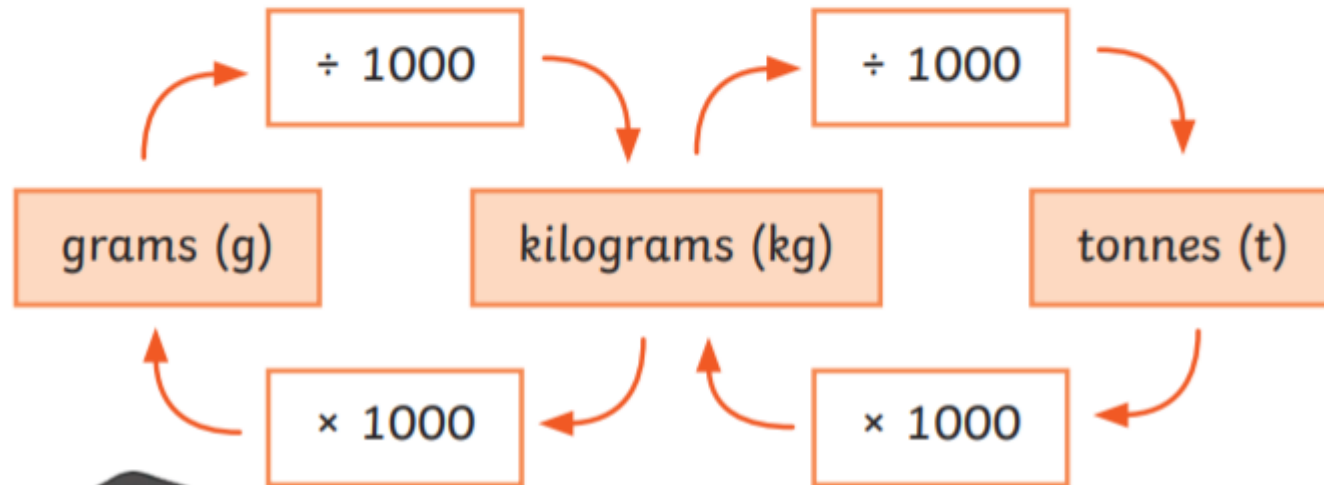
Converting Mass

1 tonne = 1000kg

1000g = 1kg

$\frac{1}{10}$ kg = 0.1kg = 100g

$\frac{1}{4}$ kg = 0.25kg = 250g

$\frac{1}{2}$ kg = 0.5kg = 500g

$\frac{3}{4}$ kg = 0.75 = 750g

÷ 1000

÷ 1000

grams (g)   kilograms (kg)   tonnes (t)

× 1000   × 1000

'Kilo' means thousand, therefore 1 kilogram is the same as 1,000 grams

This also means that 2 kilograms is the same as 2,000 grams

We don't often have to use tonnes in Year 6 but you can see that they are 1000 times greater than a kilogram
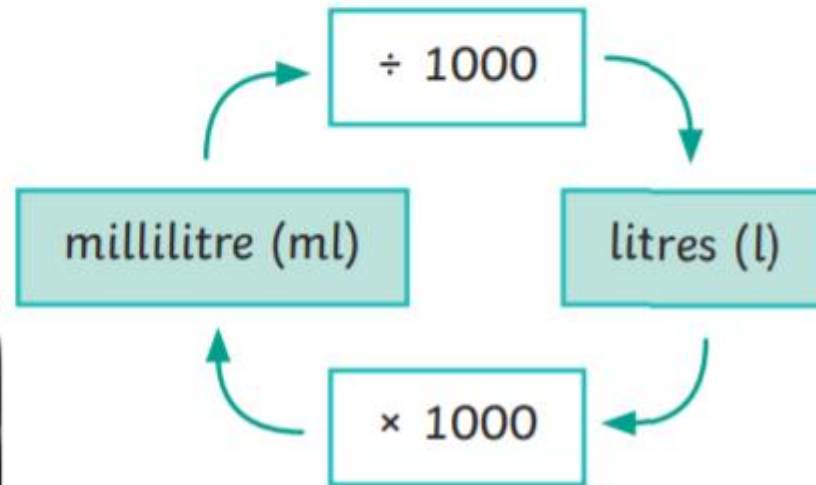
Converting Capacity

1000ml = 1l

$\frac{1}{10}l$ = 0.1l = 100ml

$\frac{1}{4}l$ = 0.25l = 250ml

$\frac{1}{2}l$ = 0.5l = 500ml

$\frac{3}{4}l$ = 0.75l = 750ml

$\frac{1}{100}l$ = 0.01l = 10ml

÷ 1000

millilitre (ml)

litres (l)

× 1000

The conversions between litres and millilitres are more or less exactly the same as with kilograms and grams.

For capacity, 1 litre is the same as 1,000 millilitres.

Converting Length

1000m = 1km	$\frac{1}{2}$ m = 0.5m = 50cm	$\frac{3}{4}$ m = 0.75m = 75cm
100cm = 1m	$\frac{1}{4}$ m = 0.25m = 25cm	$\frac{1}{10}$ m = 0.01m = 10cm
10mm = 1cm		

÷ 10		÷ 100		÷ 1000
millimetres (mm)	**centimetres (cm)**		**metres (m)**	**kilometres (km)**
× 10		× 100		× 1000
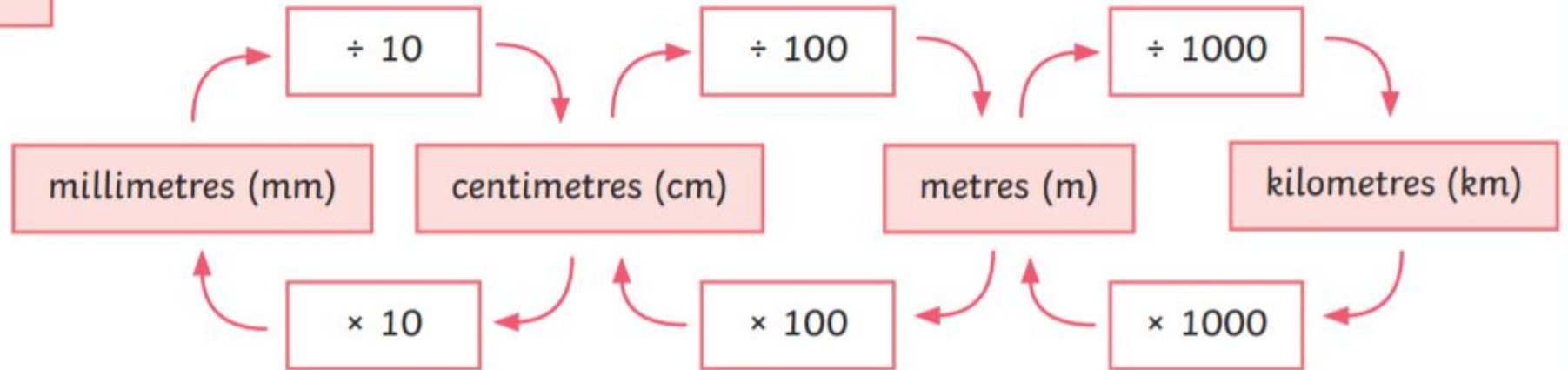
- Length, again, is similar but we often use centimetres in between millimetres and metres.
- 1cm = 10mm
- 1m = 100cm
- 1km = 1000m

Use this table to help you.

Converting miles to kilometres

- For converting between kilometres (metric unit) and miles (imperial unit) we use a **ratio**

- We use the rule that 8km = 5 miles

- E.g.

Kilometres	Miles
8 km	5 miles
16 km	10 miles
24 km	15 miles
80 km	50 miles
160 km	100 miles

The conversion here is exactly the same as we had in the ratio week. We use 8 km = 5 miles as our basic rule so if we have 16 km, we know that both sides must be **multiplied by 2.**

Miles to km

Ron and Annie are running a 5 mile race.

I have run 6.4 km so far

I have run 3.8 miles so far

Who has the furthest left to run?

Miles to km

Ron and Annie are running a 5 mile race.

I have run 6.4 km so far

I have run 3.8 miles so far

Who has the furthest left to run?

5 miles = 8 km

This means Annie has 1.6 km left
Ron has 1.2 miles left

We can use our ration to compare exactly

8 km	5 miles
16 km (x2)	10 miles (x2)
1.6 km (÷10)	1 mile (÷10)

1.6 km = 1 mile so Ron has further left to run