

Converting Measures

Starter

$$8 + 5 + 2 + 5 = \boxed{}$$

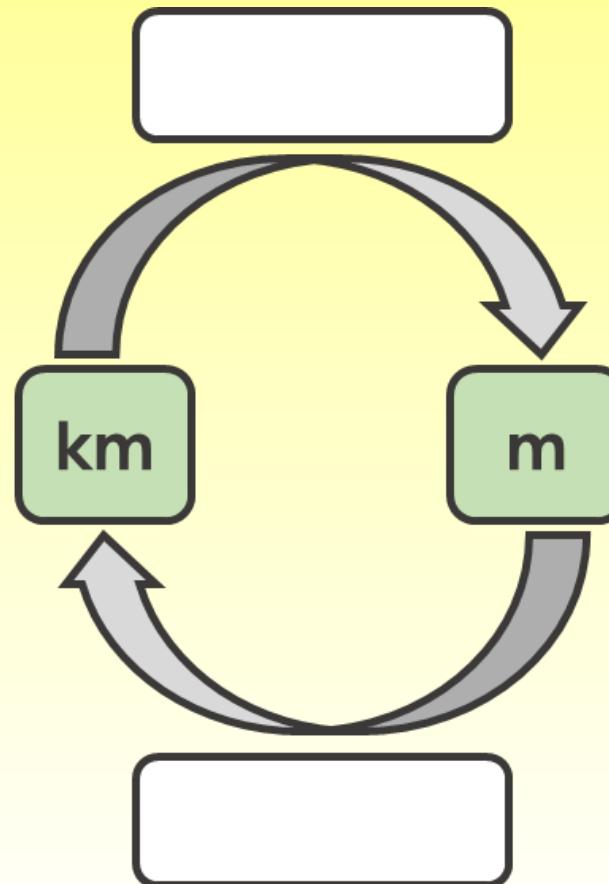
$$12 + 3 + 8 + 4 = \boxed{}$$

$$14 + 6 + 15 + 5 = \boxed{}$$

$$19 + 4 + 1 + 5 + 6 = \boxed{}$$

$$23 + 8 + 7 + 2 + 3 = \boxed{}$$

Complete the box to show what you must do
to convert these units of measure.



Mike runs $\frac{9}{10}$ of 1km. How many metres does he run?



The **RUCSAC** Method
for solving maths
word problems

R	<u>Read</u> the question carefully	Find the important information - <u>underline it!</u>
U	<u>Understand</u> the question	What do you have to find out? Draw a 'picture' of the question, if it helps.
C	<u>Choose</u> the correct method of calculation	+ - × ÷ What method is best for you to use?
S	<u>Solve</u> the problem	Show every step and keep your working out neat.
A	<u>Answer</u> the question	Read the question again - have you answered it? Make the answer clear.
C	<u>Check</u> your answer	Does it make sense? Find a way to check - estimate or use the inverse.

Which of the following objects could be 100m long?

running track

bench

hall

Find the odd one out

A. 5km

B. 127cm

C. 2.5kg

D. The length of a football pitch

Using the cards below, create as many comparisons as you can in your book.

5,500
m

4.3km

2,300
m

<

>

In the olden days, we used to weigh things differently.

We used to use "imperial" measurements.

- **Stones**

- A sack of grain weighs about 12 stones.



= 12 stones

- **Pounds**

- A bag of sugar weighs 2 pounds.



= 2 pounds

- **Ounces**

- An apple weighs about 4 ounces.



= 4 ounces

1 stone = 14 pounds.

1 pound = 16 ounces.



But I don't know my
14 and 16 times
tables! Working with
imperial units makes
my brain hurt...
(thought everyone)

So people invented easier units.

What do we use to measure weights nowadays?

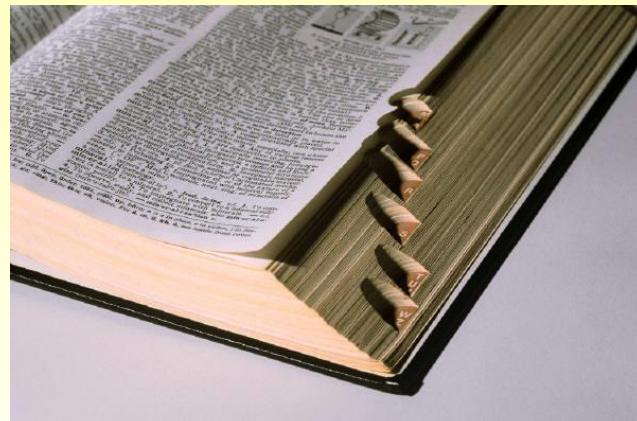
- Grams. 1 gram is about the weight of one Skittle sweet.

Instead of writing grams we often just write g.



- Kilograms. 1 kilogram is about the weight of a large dictionary.

We write kg for kilograms.



How many grams are in a kilogram?

I know that....

- To multiply by 10 you move everything one space to the left,
- And to multiply by 100 you move everything two spaces to the left..
- What do you think you do to multiply by 1000?

Converting grams to kilograms and vice versa.

REMEMBER TO ADD 0 AS A PLACE HOLDER!

- To convert kilograms to grams, we multiply by 1000.

$\times \underline{1000}$

Tens of Thousands 50,000	Thousands 1000	Hundreds 100	Tens 10	Ones 1	Decimal point •	Tenths $\frac{1}{10}$ 0.1	Hundredths $\frac{1}{100}$ 0.01
				7	0	0	0

7 kg



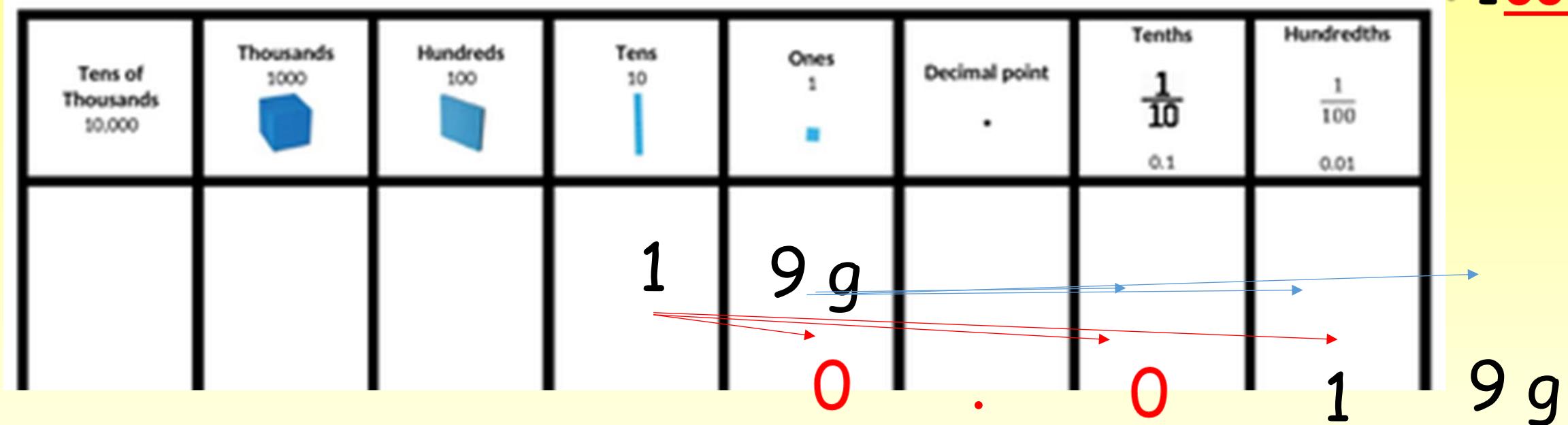
$$\text{So } 7 \text{ kg} = 7000 \text{ g}$$

Converting grams to kilograms and vice versa.

REMEMBER TO ADD 0 AS A PLACE HOLDER!

To convert grams to kilograms, we divide by 1000.

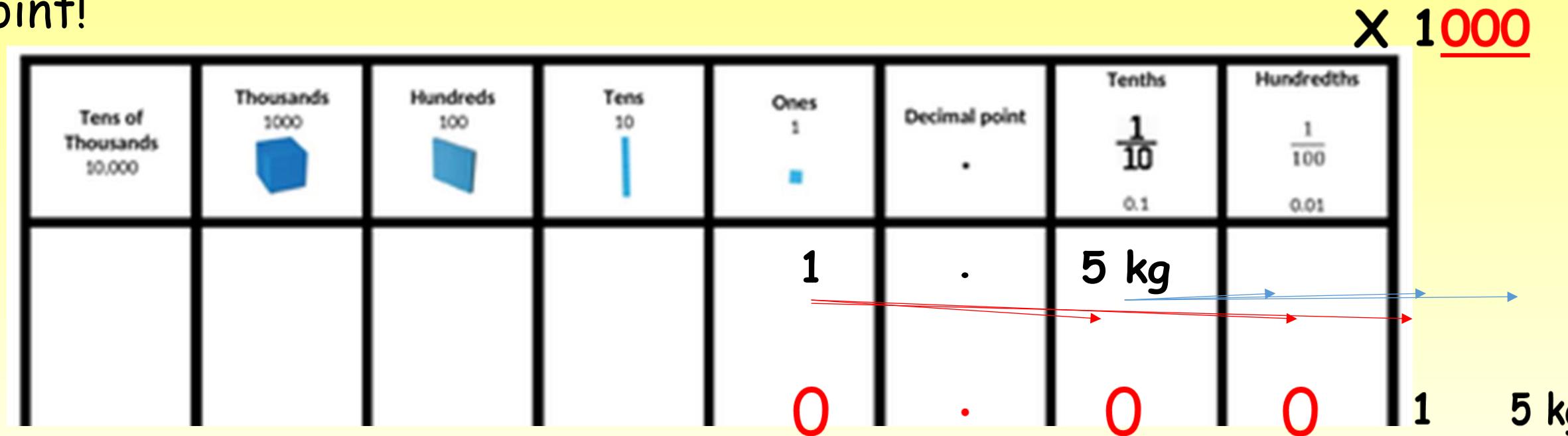
$\div \underline{1000}$



$$\text{So } 19 \text{ g} = 0.019 \text{ kg}$$

1.5kg... Hang on! This one's got a decimal.

Easy-peasy. Do the same thing. Just don't move the decimal point!



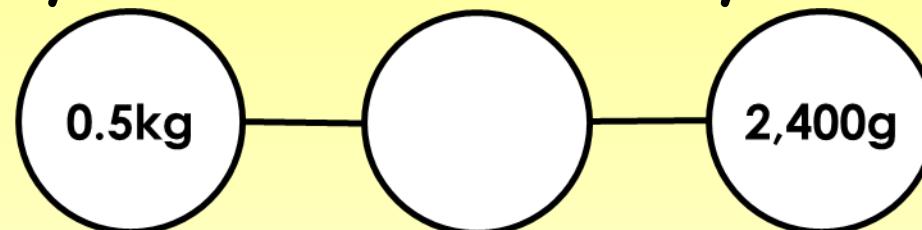
So $1.5 \text{ kg} = 0.0015 \text{ g}$,
Phew, I thought I cannot do it ☺

Let's try these in your book: (Activity 1)

1. Convert 4.3 kg to grams.
2. Convert 1900 g to kilograms.
3. Convert 364.8 kg to grams.
4. Convert 2743 g to kilograms.
5. Convert 0.8 kg to grams.

Activity 2 in your book

Complete the circles so that each line adds up to 7,000g in every direction. Give your answer in kilograms.



Remember you DO NOT need to draw circles!
Squares will do ☺

Select a number from the box to make these statements correct. Add the correct unit of measurement. (Copy them in your book Activity 3)

5kg < _____

_____ > 16kg

7.1km > _____

3,900m = _____

3.9	17,000	5,300	4,800
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True or false?

4kg > 3,500g

21kg > 2,010g

7.3km = 730m

2,900m > 2.9km

Check each of the conversions and correct any that are wrong. **Activity 4** Copy the wrong number sentence in your book and write the correction next to it.

$$6,000\text{m} = 6.0\text{km}$$

$$900\text{m} = 9.0\text{km}$$

$$7.5\text{km} = 7,500\text{m}$$

$$4.7\text{kg} = 4,070\text{g}$$

$$50,000\text{g} = 5.5\text{kg}$$

$$150\text{g} = 15.0\text{kg}$$

$$200\text{m} = 2.0\text{km}$$

$$8.1\text{kg} = 810\text{g}$$

$$1,600\text{g} = 1.6\text{kg}$$

$$1,900\text{m} = 1.9\text{km}$$

Problem solving

Each bunch of bananas weighs 550g.



I have £3.50 to spend,
so I can buy 2
bunches of bananas.

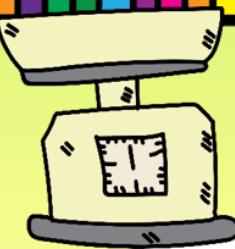
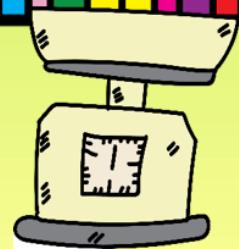
Mrs Vosyliene says:

Is Mrs Vosyliene right?
Explain how you know.

If we know that one bottle of lemonade has volume of 1 litre, make estimates for the following:

a bath	
a sink	
a can of drink	
a cup of coffee	

Measuring Weight



A paper clip weighs about 1 gram



A dictionary weighs about 1 kilogram.



There are 1000 grams in a kilogram

$\frac{1}{2}$ of a kilogram is 500 grams

$\frac{1}{4}$ of a kilogram is 250 grams

$\frac{3}{4}$ of a kilogram is 750 grams

Activity 5

Open Activity 5
in Mass folder
and choose

- Bob bought 8 apples from the greengrocers. Each weighed 212g. How much did they weigh altogether?
- Sandra bought a bag of sweets, and decided to share them into party bags for her 8 friends. The sweet bags weighed 1544 g. How much did each party bag weigh?