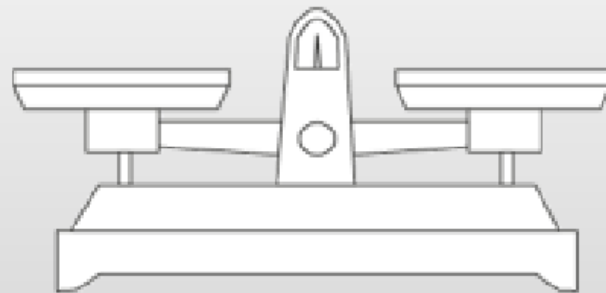


Know that weight can be measured in kg and g.

Pick up a large bag of cotton wool, a roll of kitchen paper and a bag of pasta. Which do you think is the **heaviest** and which the **lightest**? How could we check?



We can use a **pan balance** both to directly compare the weight of any pair of objects and also to find the number of wooden blocks each weigh.

Know that weight can be measured in kg and g.

Shopkeepers, farmers and factories which package food don't use wooden bricks or marbles to weigh food, they use **grams and kilograms**. This makes weights easy to compare because they all use the same **units of measure**.



1g



100g

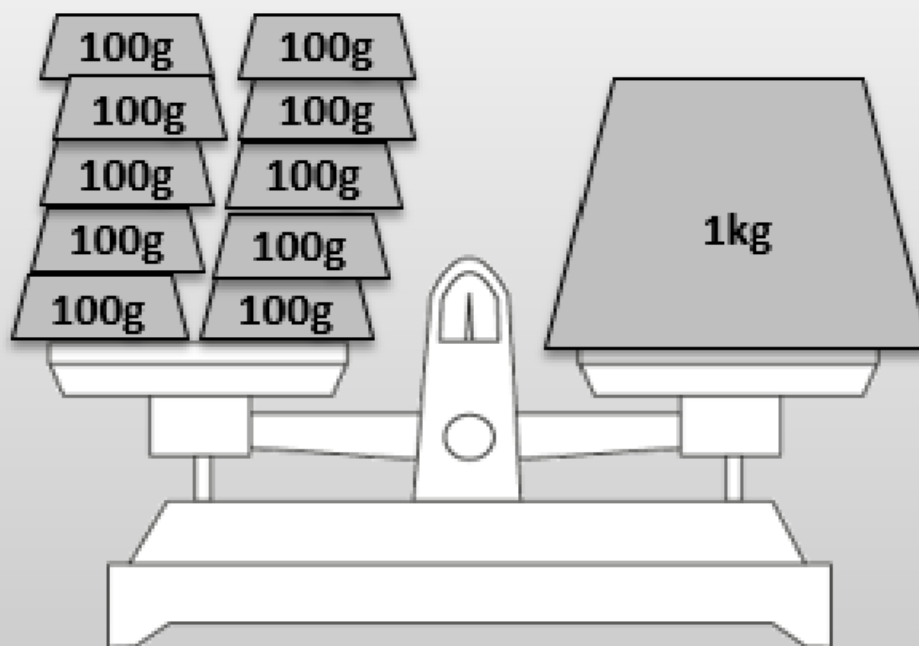


1kg

Carefully hold a kilogram and a gram weight (or items that weight 1kg and 1g). Discuss how light the gram feels and how very heavy the kilogram is. Hold a 100g weight (or something that weighs 100g). This weighs the same as 100 of the little grams! The kilogram weight weighs the same as 1000 of those little gram weights!

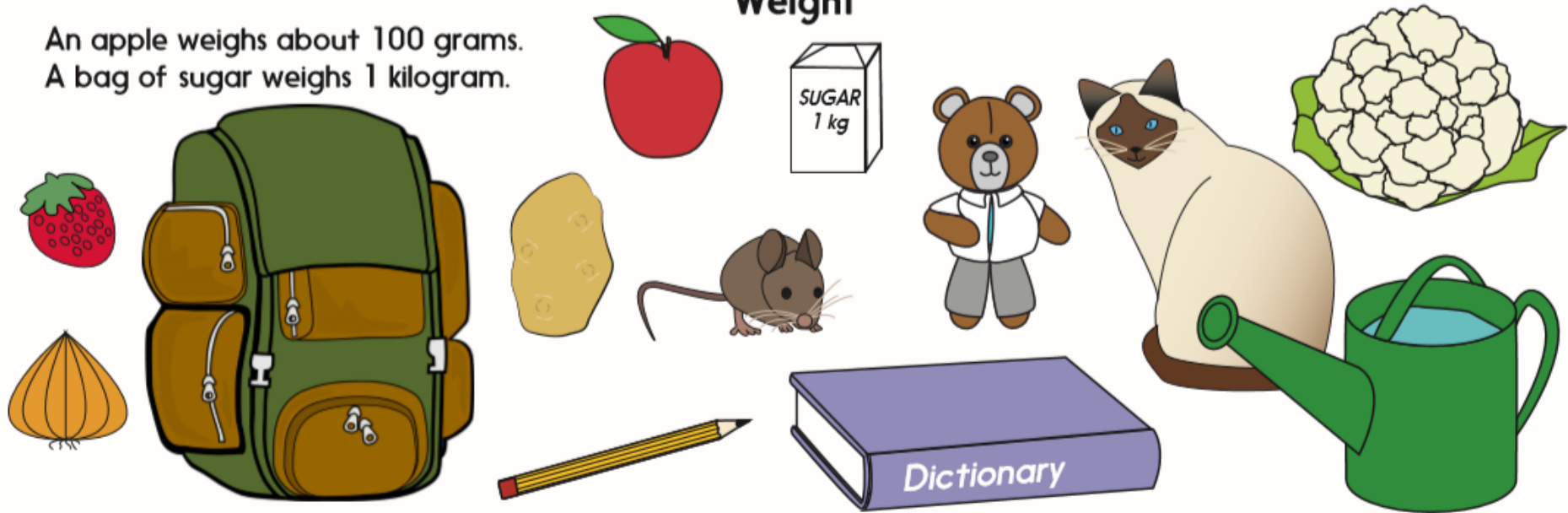
Know that weight can be measured in kg and g.

We can use the pan balance to show that ten 100g weights are equal to 1kg. **1000g is the same as 1kg.** We could use the pan balance to weigh a shoe to the nearest 100g.



Practice Sheet Mild Weight

An apple weighs about 100 grams.
A bag of sugar weighs 1 kilogram.



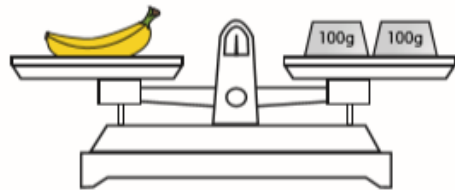
Draw the things you think will weigh **less than** 100 grams

Draw the things that might weigh **about** 1 kilogram

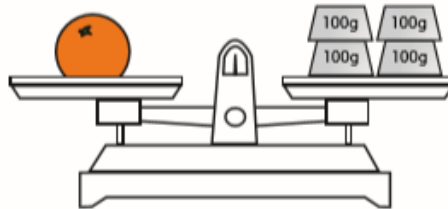
Draw the things you think will weigh **more than** 1kg

Practice Sheet Hot Weight

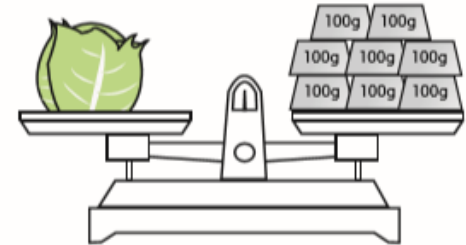
How many 100g weights balance each item?
Write the number of weights. Count in steps of 100 to find the weight in grams.
The first one is done for you.



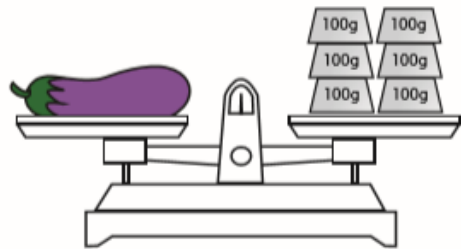
2 weights 200 grams



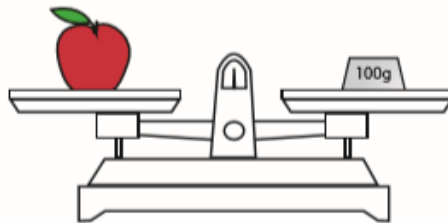
_____ weights _____ grams



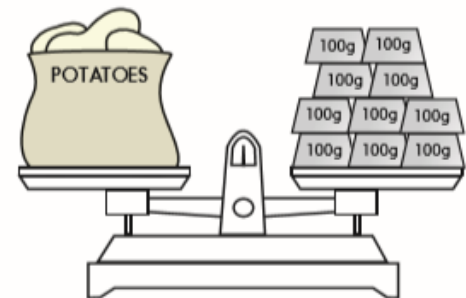
_____ weights _____ grams



_____ weights _____ grams



_____ weights _____ grams



_____ weights _____ grams

Practice Sheet Hot Weight

Draw each item weighed in the correct place in the table below.

Lighter than 500 grams	Heavier than 500 grams

Challenge

Write some items that make the same weight, e.g. 8 apples = 1 cabbage.

A tricky practical challenge!

Investigation Ten to the kilo

You will need:

- Objects weighing:
 - 1kg (e.g. a full bag of sugar)
 - 1/2 kg (e.g. a 500ml bottle of water. A pack of butter is also close at 454g)
- A range of small household objects

1. Feel the kilogram weight – pass it between you so everyone can feel it. Be careful not to drop it!
2. Feel the $\frac{1}{2}$ kg weight. This is half a kilo or 500 grams.
3. Find exactly ten objects that weigh precisely one kilogram. You will need to weigh different things to check out their weights. You will also need to use a lot of estimation!
4. Discuss what sorts of things you can use. Try fairly heavy things like books or shoes or light things like socks or paintbrushes.
5. When you think you have exactly 10 things that weigh exactly a kilogram ask an adult to check!

<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	Book 200g
<input type="checkbox"/>	Shoe 350g
<input type="checkbox"/>	Pencil 15g
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
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Challenge

Can you find 10 things that weigh exactly 100 grams?