

## Measure mass in grams

### Notes and guidance

In this small step, children measure mass in grams only. This builds on their learning from Key Stage 1, but with masses now going up to 1,000 grams.

Give children a variety of objects to weigh using scales, so that they can understand what a given number of grams can look or feel like. This also provides the opportunity to bring in the learning from the previous step, giving children a chance to read a variety of different scales, and compare this to the number lines they used in the last step.

When reading scales, children need to work out missing intervals between numbers. They should recognise that they still need to consider the start and end point, as well as the number of intervals on the scale.

### Things to look out for

- Children may be unfamiliar with the approximate mass of objects, and thus unable to identify mistakes.
- When reading scales, children may incorrectly identify the value of the intervals.
- When measuring the mass of an object using balancing scales, children may incorrectly add the masses on the wrong side.

### Key questions

- What does “mass” mean?
- What units do you use to measure mass?
- What is the start/end value on the scale?
- How many equal intervals are there on the scale?
- How do you know what the missing numbers are?
- If the measurement is halfway between two marks, how can you work out what it is?

### Possible sentence stems

- The start of the scale is \_\_\_\_\_ grams.  
The end of the scale is \_\_\_\_\_ grams.  
There are \_\_\_\_\_ intervals.  
The scale is counting up in \_\_\_\_\_ s.
- The mass of the \_\_\_\_\_ is \_\_\_\_\_ grams.

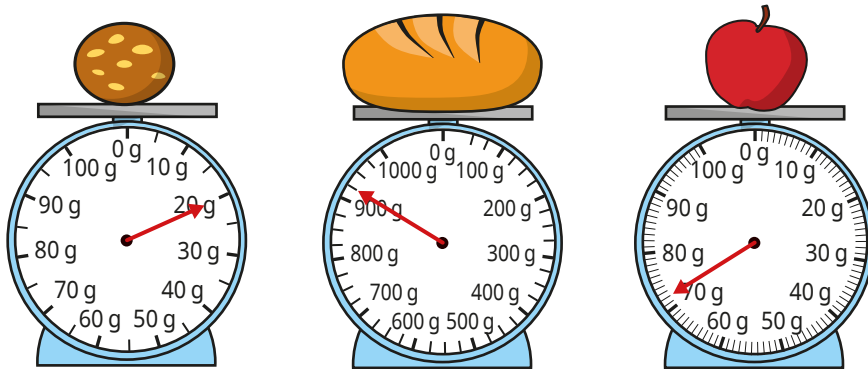
### National Curriculum links

- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)

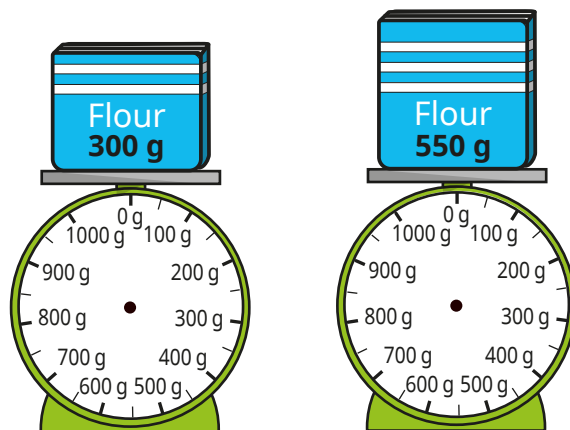
# Measure mass in grams

## Key learning

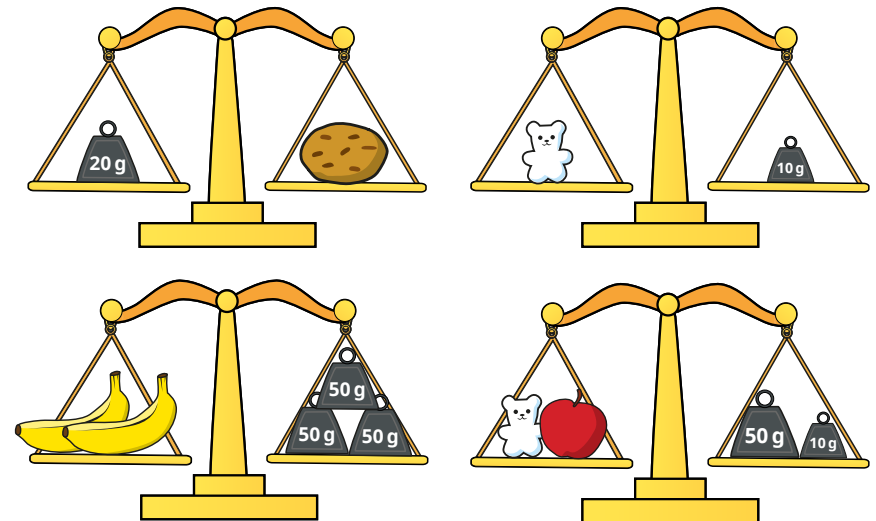
- What is the mass of each object?



- Draw arrows on the scales to show the mass of each box of flour.

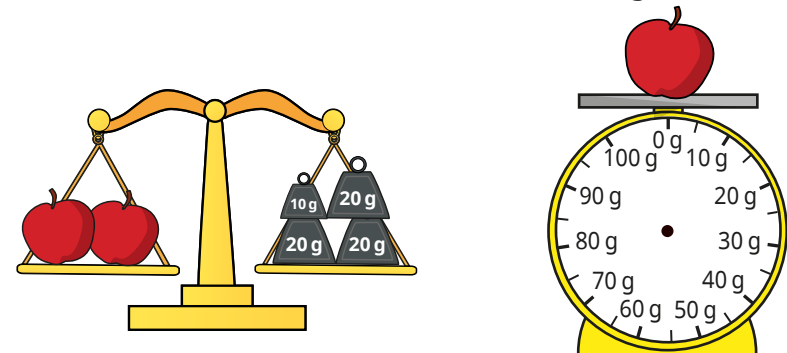


- What is the mass of each object?



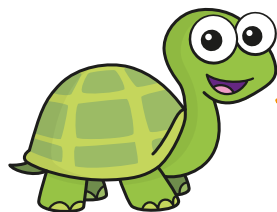
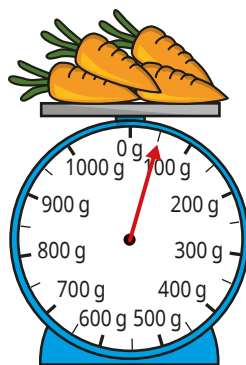
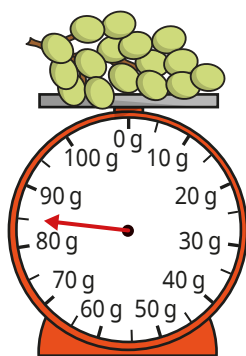
- Work out the mass of one apple.

Draw an arrow on the scale to show to show your answer.



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### Reasoning and problem solving



The carrots have a greater mass than the bananas, because the second scale is going up in 100 grams and the first scale is only going up in 10 grams.

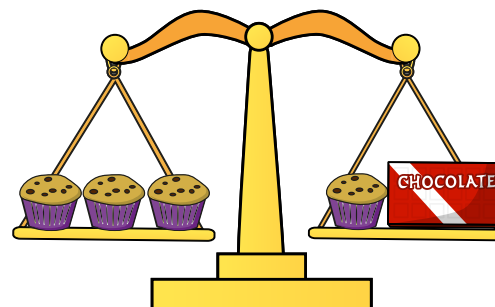
Do you agree with Tiny?

Explain your answer.

No

The chocolate bar has a mass of 100 g.

What is the mass of one muffin?



50 g

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Nijah takes the muffins and the chocolate bar off the scales.

She puts 10 muffins on one side.

How many chocolate bars will she need to balance the scales?

How did you work it out?