

Reasoning and Problem Solving

Step 3: Measure Mass (kg)

National Curriculum Objectives:

Mathematics Year 2: (2M1) [Compare and order lengths, mass, volume/capacity and record the results using >, < and =](#)

Mathematics Year 2: (2M2) [Choose and use appropriate standard units to estimate and measure length/height in any direction \(m/cm\); mass \(kg/g\); temperature \(° C\); capacity \(litres/ml\) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Find and correct the mistake. Scale uses increments of 10 only with all increments marked on the scale.

Expected Find and correct the mistake. Scale uses increments of 2, 5 and 10 with most increments marked on the scale.

Greater Depth Find and correct the mistake. Scale uses increments of 2, 5 and 10 and where some measurements fall in between and not all increments marked on the scale.

Questions 2, 5 and 8 (Problem Solving)

Developing Give the possible weight of the object using increments of 10 with all increments marked on the scale.

Expected Give the possible weight of the object using increments of 2, 5 and 10 with most increments marked on the scale.

Greater Depth Give the possible weight of the object using increments of 2, 5 and 10 and where some measurements fall in between and not all increments marked on the scale.

Questions 3, 6 and 9 (Reasoning)

Developing Explain whether you agree or disagree with a statement made when working out the weight of an item on a scale using increments of 10 only with all increments marked on the scale.

Expected Explain whether you agree or disagree with a statement made when working out the weight of an item on a scale using increments of 2, 5 and 10 mostly marked on the scale.

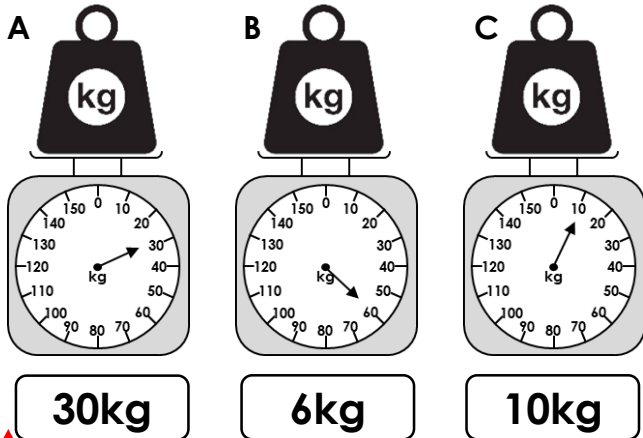
Greater Depth Explain whether you agree or disagree with a statement made when working out the weight of an item on a scale using increments of 2, 5 and 10 and where some measurements fall in between and not all increments are marked on the scale.

More [Year 2 Mass, Capacity and Temperature](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Measure Mass (kg)

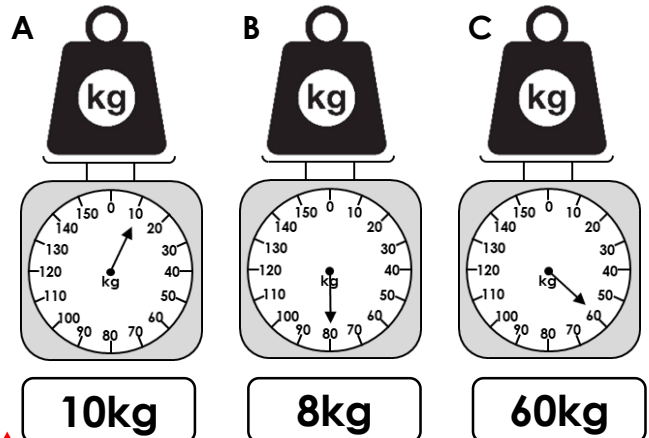
1a. Jenny has written down the measurements of these weights. Find and correct her mistake.



PS

Measure Mass (kg)

1b. Milo has written down the measurements of these weights. Find and correct his mistake.



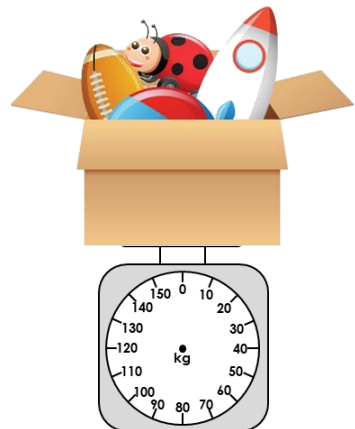
PS

2a. The box of toys weighs more than 20kg but less than 40kg. What could the weight be?



PS

2b. The box of toys weighs more than 30kg but less than 50kg. What could the weight be?



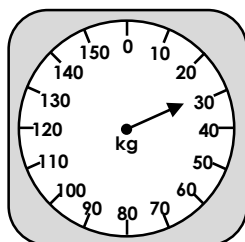
PS

3a. The scale shows how much a child weighs.



Hanna

I weigh 3kg.



Is Hanna correct? How can you tell?



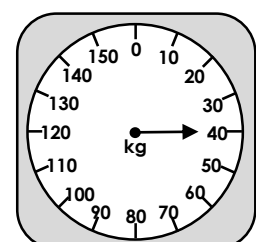
R

3b. The scale shows how much a child weighs.



Josef

I weigh 40kg.



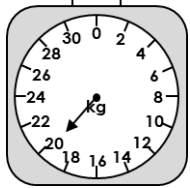
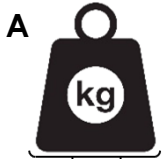
Is Josef correct? How can you tell?



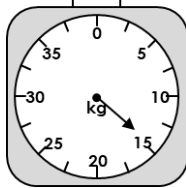
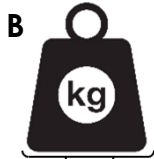
R

Measure Mass (kg)

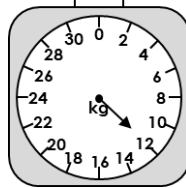
4a. Callie has written down the measurements of these weights. Find and correct her mistakes.



2kg



51kg



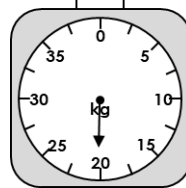
12kg



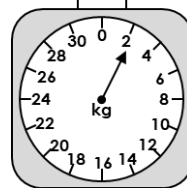
PS

Measure Mass (kg)

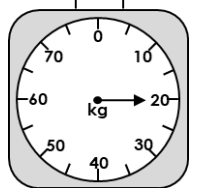
4b. Kevin has written down the measurements of these weights. Find and correct his mistakes.



20kg



20kg

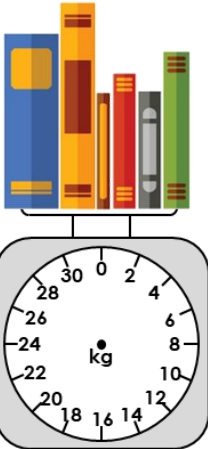


2kg



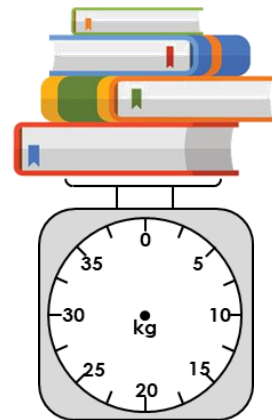
PS

5a. The books weigh more than 2kg but less than 10kg. What could the weight be?



PS

5b. The books weigh more than 5kg but less than 20kg. What could the weight be?



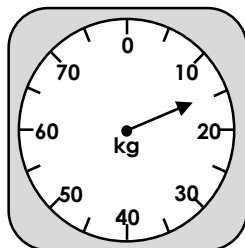
PS

6a. The scale shows how much a child weighs.



Joel

My brother weighs 11kg.



Is Joel correct? How can you tell?



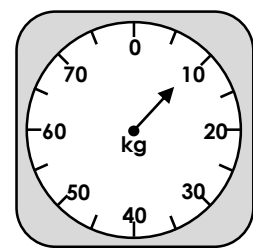
R

6b. The scale shows how much a child weighs.



Laura

My sister weighs 10g.



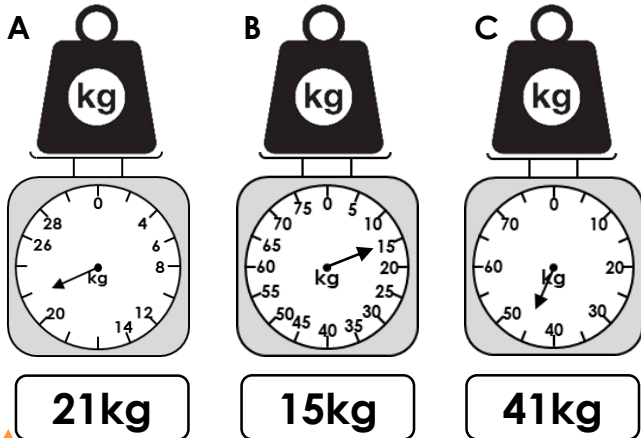
Is Laura correct? How can you tell?



R

Measure Mass (kg)

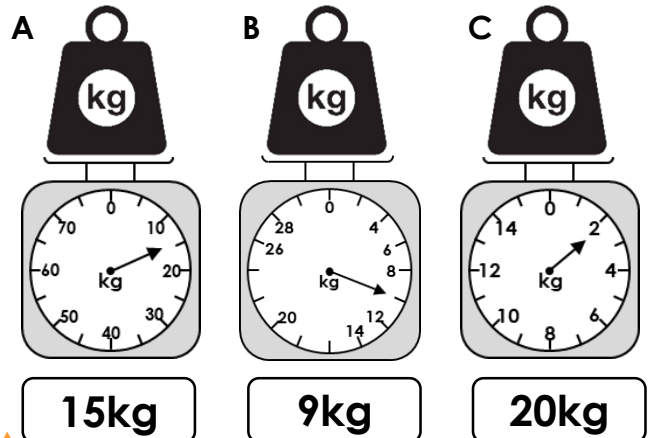
7a. Iris has written down the measurements of these weights. Find and correct her mistakes.



PS

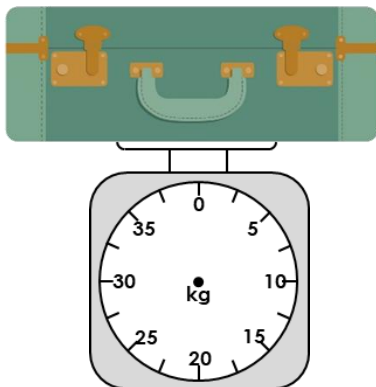
Measure Mass (kg)

7b. Charlie has written down the measurements of these weights. Find and correct his mistakes.



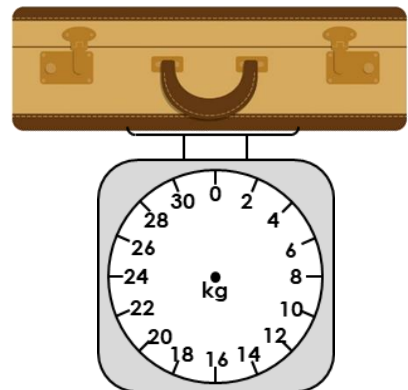
PS

8a. The suitcase weighs more than 15kg but less than 40kg. What could the weight be?



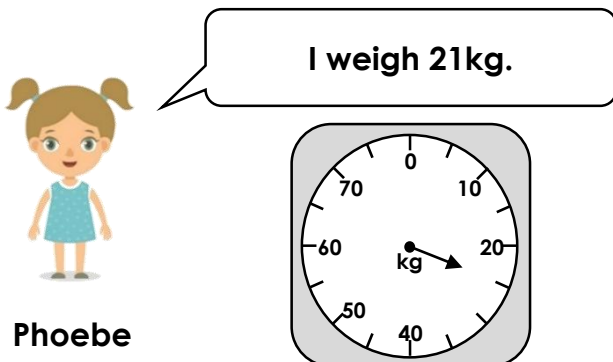
PS

8b. The suitcase weighs more than 22kg but less than 30kg. What could the weight be?



PS

9a. The scale shows how much a Year 2 child weighs.

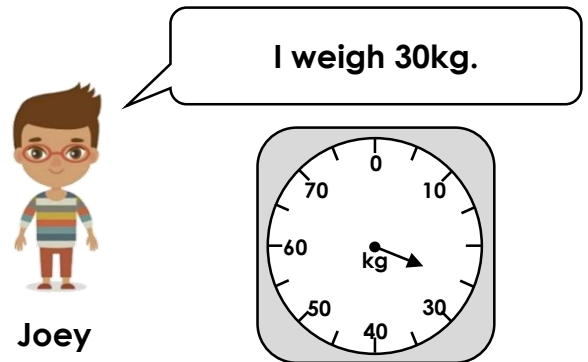


Is Phoebe correct? How can you tell?



R

9b. The scale shows how much a Year 2 child weighs.



Is Joey correct? How can you tell?



R

Reasoning and Problem Solving Measure Mass (kg)

Developing

- 1a. B should be 60kg
- 2a. 30kg
- 3a. She is incorrect because the scale shows 30kg.

Expected

- 4a. A should be 20kg, B should be 15kg
- 5a. Various answers, including: 4kg, 6kg, 8kg
- 6a. He is incorrect because half way between 10 and 20 is 15 not 11.

Greater Depth

- 7a. A should be 22kg, C should be 45kg
- 8a. Various answers, including: 20kg, 25kg, 30kg
- 9a. She is incorrect as the scale goes up in increments of 5 not 1, so the correct weight is 25kg.

Reasoning and Problem Solving Measure Mass (kg)

Developing

- 1b. B should be 80kg
- 2b. 40kg
- 3b. He is correct because the arrow is pointing to 40kg.

Expected

- 4b. B should be 2kg, C should be 20kg
- 5b. Various answers, including: 10kg, 15kg
- 6b. She is incorrect because she has used the wrong units. The right unit are kg not g.

Greater Depth

- 7b. B should be 10kg, C should be 2kg
- 8b. Various answers, including: 24kg, 26kg, 28kg
- 9b. He is incorrect as the arrow is not yet pointing to 30kg. His correct weight is 25kg.