

Reasoning and Problem Solving

Step 2: Measure Length (m)

National Curriculum Objectives:

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 \(\$^{\circ}\$ C\); capacity \(litres/ml\) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Using the given digit cards complete the measurements to give reasonable estimations. Includes lengths in whole metres and centimetres up to 100 (multiples of 10 only).

Expected Using the given digit cards complete the measurements to give reasonable estimations. Includes lengths as centimetres and mixed metres and centimetres e.g. 1m and 32cm.

Greater Depth Using the given digit cards complete the measurements to give reasonable estimations. Includes metres and centimetres and $> 100\text{cm}$ (614cm; 5m 114cm)

Questions 2, 5 and 8 (Reasoning)

Developing Explain if objects have been sorted into a chart correctly. Using objects that are obviously longer or shorter than a metre, i.e. house and a bird.

Expected Explain if objects have been sorted into a chart correctly. Using objects that are clearly longer or shorter than a metre, i.e. car and a chair.

Greater Depth Explain if objects have been sorted into a chart correctly. Using objects that are marginally longer or shorter than a metre, i.e. bike and a wheelbarrow.

Questions 3, 6 and 9 (Reasoning)

Developing Explain if a statement describing a measurement is correct or not. Scale divisions in whole metres.

Expected Explain if a statement describing a measurement is correct or not. Scale divisions in whole metres and 50 centimetres.

Greater Depth Explain if a statement describing a measurement is correct or not. Scale divisions in metres and centimetres and $> 100\text{cm}$ (614cm; 5m 114cm)

More [Year 2 Length and Height](#) resources.

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

Measure Length (m)

1a. Use the digit cards to estimate a suitable length for these objects.

bus 8 m and 0 cm

scooter m and 2 0 cm

1 7



PS

Measure Length (m)

1b. Use the digit cards to estimate a suitable length for these objects.

train 10 m and 0 cm

go-kart m and 1 0 cm

2 7



PS

2a. Amelia has been sorting objects into the chart below.

Measure in metres	Measure in centimetres
 house  sweet	 banana  pencil

Has she sorted them correctly? Explain your answer.



R

2b. Hasan has been sorting objects into the chart below.

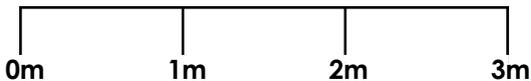
Measure in metres	Measure in centimetres
 giraffe	 apple  lamp  bird

Has he sorted them correctly? Explain your answer.



R

3a. Alfie is measuring objects. He says,



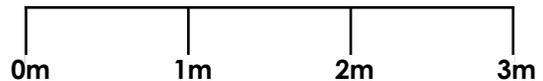
I think the snake is 2m and 20cm.

Is he correct? Explain your answer.



R

3b. Anna is measuring objects. She says,



I think the snake is 2m and 90cm.

Is she correct? Explain your answer



R

Measure Length (m)

4a. Use the digit cards to estimate a suitable length for these objects.

car 3 m and cm

bike m and 3 cm

0 9 1 5



PS

Measure Length (m)

4b. Use the digit cards to estimate a suitable length for these objects.

coach m and 9 cm

surf board 1 m and cm

9 1 2 0



PS

5a. Abel has been sorting objects into the chart below.

Measure in metres	Measure in centimetres
 dolphin  car	 bread  tree  chair

Has he sorted them correctly? Explain your answer.



R

5b. Julia has been sorting objects into the chart below.

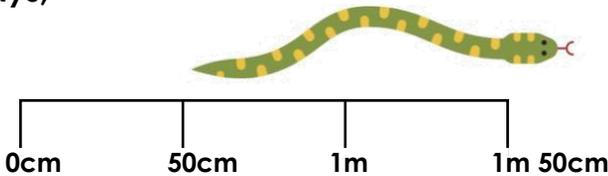
Measure in metres	Measure in centimetres
 street light  cucumber  hippo	 ball  toy  meerkat

Has she sorted them correctly? Explain your answer.



R

6a. Naseem is measuring objects. She says,



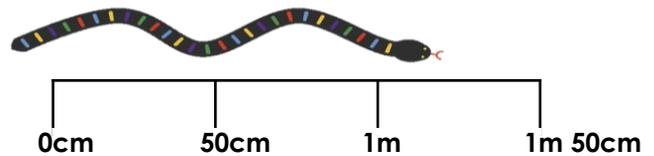
I think the snake is 1m and 75cm.

Is she correct? Explain your answer.



R

6b. Simon is measuring objects. He says,



I think the snake is 1m and 35cm.

Is he correct? Explain your answer



R

Measure Length (m)

7a. Use the digit cards to estimate a suitable length for these objects.

van cm

motor-bike m and cm

2 8 3 5 1 9



PS

Measure Length (m)

7b. Use the digit cards to estimate a suitable length for these objects.

lorry cm

bike m and cm

1 5 4 8 7 9



PS

8a. Sobia has been sorting objects into the chart below.

Measure in metres	Measure in centimetres
horse monkey bike	fish umbrella

Has she sorted them correctly? Explain your answer.



R

8b. Stefan has been sorting objects into the chart below.

Measure in metres	Measure in centimetres
spade seal	wheelbarrow trike fox

Has he sorted them correctly? Explain your answer.



R

9a. Awais is measuring objects. He says,



0m 1m 50cm 3m 4m 50cm



I think the snake is 379cm.

Is he correct? Explain your answer.



R

9b. Leila is measuring objects. She says,



0m 1m 50cm 3m 4m 50cm



I think the snake is 324cm.

Is she correct? Explain your answer



R

Reasoning and Problem Solving Measure Length (m)

Developing

- 1a. Various possibilities, any reasonable answer acceptable, for example: bus 8m and 70cm; scooter 1m and 20cm
2a. The sweet should be measured in cm.
3a. No, Alfie has not aligned the snake's tail with the 0 on the scale.

Expected

- 4a. Various possibilities, any reasonable answer acceptable, for example: car 3m and 95cm; bike 1m and 10cm
5a. The tree should be measured in m.
6a. No, Naseem has started to measure the snake at 50cm, not 0.

Greater Depth

- 7a. Various possibilities, any reasonable answer acceptable, for example: van 985cm; motorbike 1m and 23cm
8a. The monkey should be measured in cm.
9a. No, Awais has positioned the snake in the middle of the scale, not at 0.

Reasoning and Problem Solving Measure Length (m)

Developing

- 1b. Various possibilities, any reasonable answer acceptable, for example: train 10m and 70cm; go-kart 2m and 10cm
2b. The lamp should be measured in m.
3b. No, Anna has positioned the snake in the middle of the scale, not at 0.

Expected

- 4b. Various possibilities, any reasonable answer acceptable, for example: coach 9m and 92cm; surfboard 1m and 10cm
5b. The cucumber should be measured in cm.
6b. No, Simon has not aligned the snake's tail with 0.

Greater Depth

- 7b. Various possibilities, any reasonable answer acceptable, for example: lorry 987cm; bike 1m and 45cm
8b. The wheelbarrow should be measured in m.
9b. No, Leila has not aligned the snake's tail with 0.