

Year 2/3 – Spring Block 4 – Length and Height – Step 2

About This Resource:

This PowerPoint has been designed to support your teaching of this small step from the Mixed Age planning. It includes a starter activity suitable for each year group and an example of each question from the Varied Fluency and Reasoning and Problem Solving resources also provided in this pack (separate for each year group). Each slide has the year group identified in the bottom right-hand corner. We recommend that you look through this PowerPoint in advance and decide whether to work through all examples provided or a selection of them depending on the needs of your class.

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

Mathematics Year 3:(3M1a) [Compare lengths \(m/cm/mm\)](#)

Mathematics Year 3:(3M2a) [Measure lengths \(m/cm/mm\)](#)

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

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

Step 2

Year 2: Measure Length (m)

**Year 3: Equivalent lengths -
m and cm**

Introduction

Would you use a centimetre ruler to measure your classroom?



Can you think of a bigger unit of measurement for length that would be better?

How many centimetres (cm) are there in 1 metre (m)?

Introduction

Would you use a centimetre ruler to measure your classroom?

No, this unit of measurement is too small to measure a room.



Can you think of a bigger unit of measurement for length that would be better?

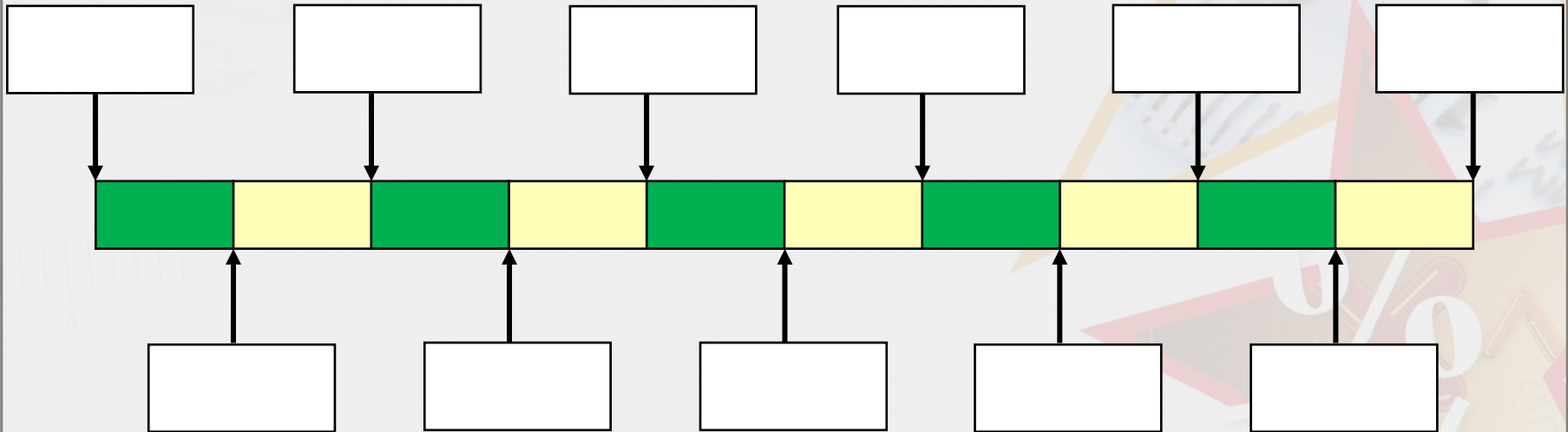
metres - m

How many centimetres (cm) are there in 1 metre (m)?

100cm = 1m

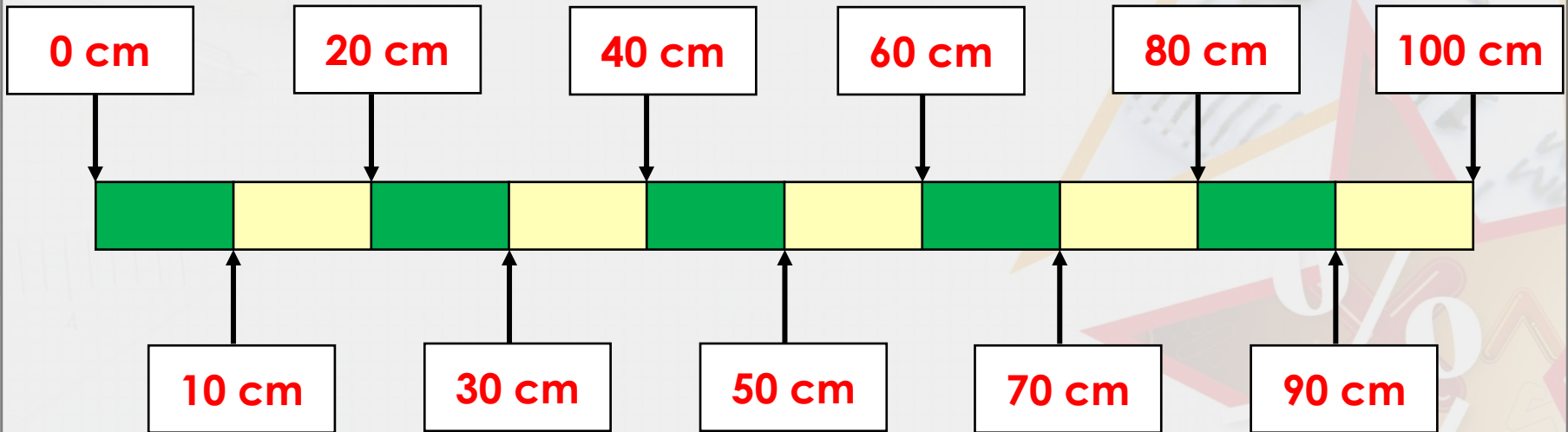
Introduction

What are the missing markings on the metre ruler?



Introduction

What are the missing markings on the metre ruler?



Varied Fluency 1

True or false? This lamppost is less than 1m tall.



2m and 91cm



not to scale

Varied Fluency 1

True or false? This lamppost is less than 1m tall.



2m and 91cm



not to scale

False, it is 1m and 91cm taller than 1m.

Varied Fluency 2

Choose the correct word to complete the statement.

The school hall is than
1 metre and 28 centimetres.

longer

shorter

Varied Fluency 2

Choose the correct word to complete the statement.

The school hall is **longer** than
1 metre and 28 centimetres.

longer

shorter

Varied Fluency 3

Circle the measurement that is the best estimate for the height of a tiger.



39cm

5m 14cm

1m 21cm

Varied Fluency 3

Circle the measurement that is the best estimate for the height of a tiger.



39cm

5m 14cm

1m 21cm

Varied Fluency 4

Match the object to the estimated length.

play
house



11m

coach



67cm

suitcase



2m 51cm

not to scale

Varied Fluency 4

Match the object to the estimated length.

play
house



11m

coach



67cm

suitcase

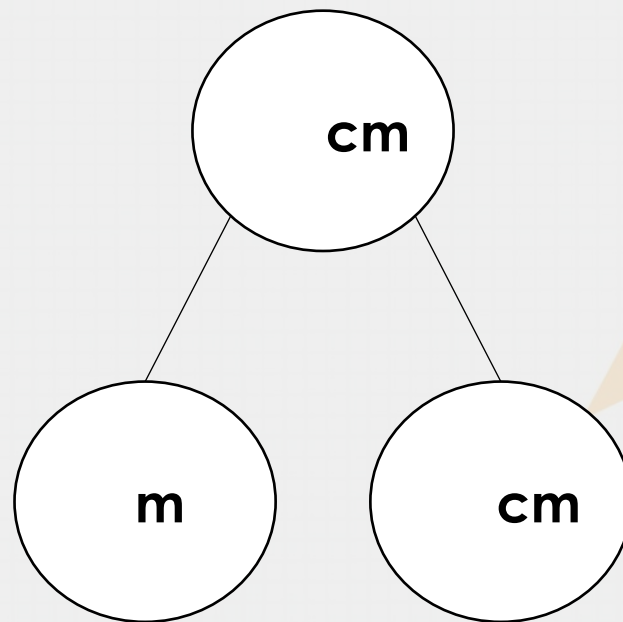


2m 51cm

not to scale

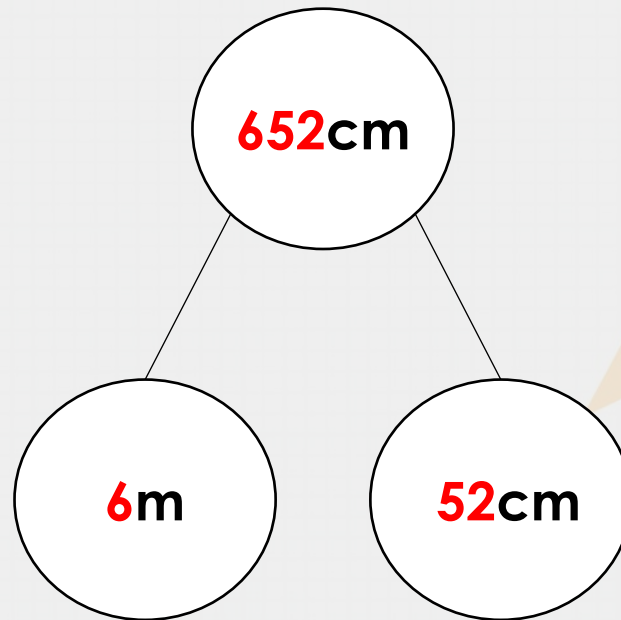
Varied Fluency 1

Complete the part whole model



Varied Fluency 1

Complete the part whole model



Varied Fluency 2

Complete the statements with $<$ $>$ or $=$

725cm

7m 52cm

755cm

6m 32cm

632cm

623cm

Varied Fluency 2

Complete the statements with $<$ $>$ or $=$

725cm

$<$

7m 52cm

$<$

755cm

6m 32cm

$=$

632cm

$>$

623cm

Varied Fluency 3

Put these lengths in order from shortest to longest.

4m 28cm

482cm

427cm

4m 72cm

Varied Fluency 3

Put these lengths in order from shortest to longest.

1. 427cm

2. 4m 28cm

3. 4m 72cm

4. 482cm

Varied Fluency 4

Complete the conversion table:

| m and cm | cm |
|-------------|-------|
| 3m and 52cm | |
| | 525cm |
| 0m and 85cm | |
| | 889cm |
| 6m and 73cm | |

Varied Fluency 4

Complete the conversion table:

| m and cm | cm |
|----------------|--------------|
| 3m and 52cm | 352cm |
| 5m 25cm | 525cm |
| 0m and 85cm | 85cm |
| 8m 89cm | 889cm |
| 6m and 73cm | 673cm |

Problem Solving 1

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

truck m and cm

car m and cm

3

8

1

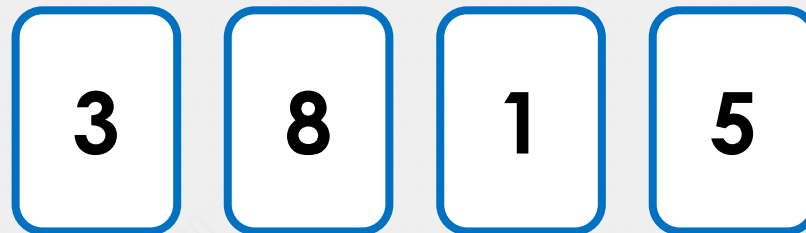
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Problem Solving 1

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

truck **9** m and **8** **5** cm







car **3** m and **1** **0** cm



Various possible answers

Reasoning 1







Chloe has been sorting objects into the chart below.

| Measure in metres | Measure in centimetres |
|--|---|
| <p>shark</p>  <p>tortoise</p>  | <p>ball</p>  <p>pear</p>  |
| <p>ambulance</p>  | <p>flower</p>  |

Has she sorted them correctly? Explain your answer.

Reasoning 1

Chloe has been sorting objects into the chart below.







| Measure in metres | Measure in centimetres |
|---|---|
| <p>shark</p>  <p>tortoise</p>  <p>ambulance</p>  | <p>ball</p>  <p>pear</p>  <p>flower</p>  |

Has she sorted them correctly? Explain your answer.

No, she has not sorted them correctly because...

Reasoning 1

Chloe has been sorting objects into the chart below.

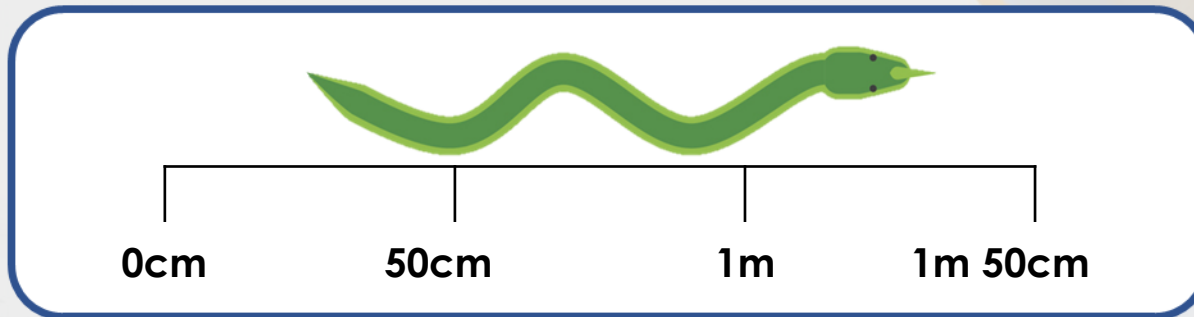
| Measure in metres | Measure in centimetres |
|---|---|
| <p>shark</p>  <p>tortoise</p>  <p>ambulance</p>  | <p>ball</p>  <p>flower</p>  <p>pear</p>  |

Has she sorted them correctly? Explain your answer.

No, she has not sorted them correctly because the tortoise should be measured in cm.

Reasoning 2

Harry is measuring objects. He says,

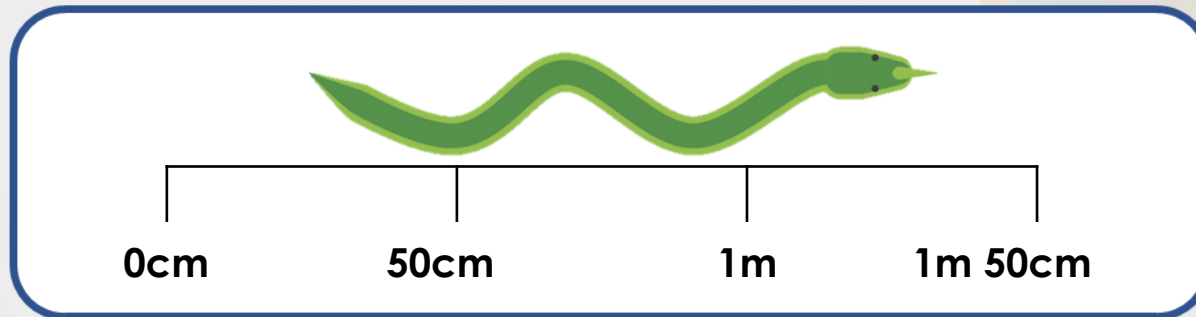


I think the snake is 1m and 55cm.

Is he correct? Explain your answer.

Reasoning 2

Harry is measuring objects. He says,



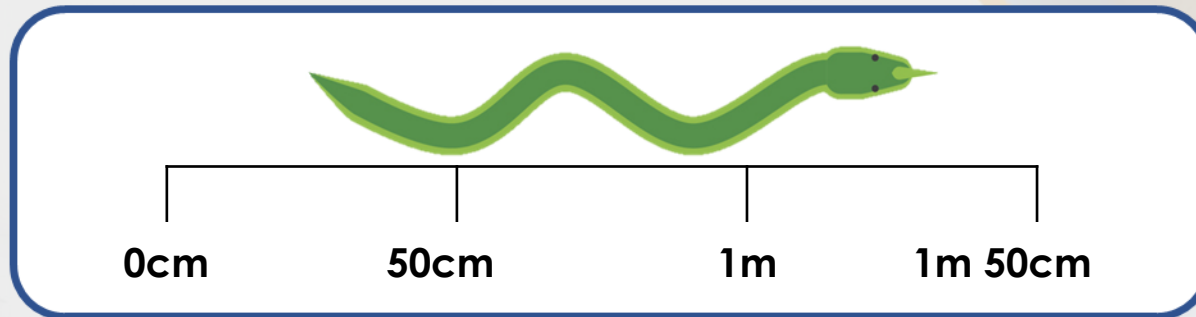
I think the snake is 1m and 55cm.

Is he correct? Explain your answer.

No, he is not correct because...

Reasoning 2

Harry is measuring objects. He says,



I think the snake is 1m and 55cm.

Is he correct? Explain your answer.

No, he is not correct because the snake's tail should be in line with the 0.

Reasoning 1

Lee's bedroom is 3m 58cm long. Is his piece of carpet long enough?



My piece of carpet is 388cm long.

Convince me.

Reasoning 1

Lee's bedroom is 3m 58cm long. Is his piece of carpet long enough?



My piece of carpet is 388cm long.

**Convince me.
It is long enough because...**

Reasoning 1

Lee's bedroom is 3m 58cm long. Is his piece of carpet long enough?



My piece of carpet is 388cm long.

Convince me.

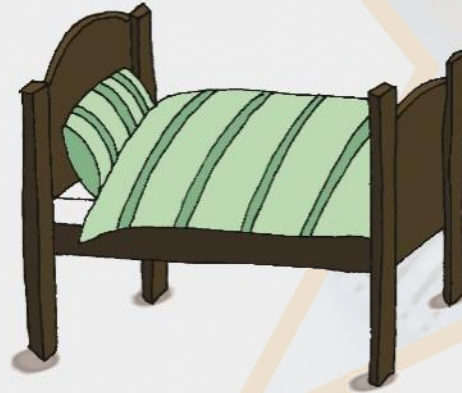
It is long enough because his bedroom is 3m 58cm long, which is equal to 358cm. His piece of carpet is 388cm long which is 30cm longer.

Reasoning 2

The bed is longer than the window. True or false?
Explain your answer.



2m 10cm



195cm

Reasoning 2

The bed is longer than the window. True or false?
Explain your answer.



2m 10cm



195cm

False because...

Reasoning 2

The bed is longer than the window. True or false?
Explain your answer.



2m 10cm



195cm

False because the window is 2m 10cm which is equal to 210cm. 210cm is more than 195cm so the bed is shorter than the window.

Problem Solving 1

Using the digit cards complete the statement in 3 different ways.



$$\square \text{ m } \square \square \text{ cm} > \square \square \square \text{ cm}$$

Problem Solving 1

Using the digit cards complete the statement in 3 different ways.



Various possible answers, including:

$$8 \text{ m } 7 \text{ 6 cm} > 5 \text{ 4 3 cm}$$

$$7 \text{ m } 6 \text{ 5 cm} > 4 \text{ 3 8 cm}$$

$$6 \text{ m } 5 \text{ 4 cm} > 3 \text{ 8 7 cm}$$