

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

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

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

More [Year 2 and 3 Length and Height](#) resources.

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

Step 3

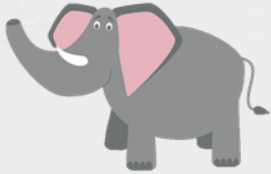
Year 2: Compare Lengths
Year 3: Compare Lengths

Introduction

Sort the objects according to the unit you would use to measure them.

cm

m



Introduction

Sort the objects according to the unit you would use to measure them.

cm



m



Introduction

Tell the person next to you:

- How many mm in 1cm?
- How many cm in 1m?



Ali

My dog's lead is 55cm.

My dog's lead is 1m
70mm.



Evie



Noah

My dog's lead is 0m 65cm.

What comparison statements can you make using this information?

Introduction

Tell the person next to you:

- How many mm in 1cm? **10mm = 1cm**
- How many cm in 1m? **100cm = 1m**



Ali

My dog's lead is 55cm.

My dog's lead is 1m
70mm.



Evie



Noah

My dog's lead is 0m 65cm.

What comparison statements can you make using this information?

**Various answers, for example: Ali's lead is shorter than Evie's,
Evie's lead is longer than Ali's, Noah's lead is longer than Ali's,
Noah's lead is shorter than Evie's.**

Varied Fluency 1

Match the animals to their estimated lengths.



1m



4m



1cm

Varied Fluency 1

Match the animals to their estimated lengths.



1m



4m



1cm

Varied Fluency 2

Arrange the measurements from shortest to longest.

7 centimetres

20cm

9 centimetres

Varied Fluency 2

Arrange the measurements from shortest to longest.

7 centimetres

20cm

9 centimetres

7 centimetres

9 centimetres

20cm

Varied Fluency 3

Which statements are true?

A. $84\text{m} > 64\text{m}$

B. $56\text{cm} < 56\text{m}$

C. $10\text{m} = 10\text{cm}$

Varied Fluency 3

Which statements are true?

A. $84\text{m} > 64\text{m}$

B. $56\text{cm} < 56\text{m}$

C. $10\text{m} = 10\text{cm}$

Varied Fluency 4

Fill in the blanks to make the statements true.

36 centimetres _____ 36cm

96 centimetres _____ 63cm

49cm _____ 56cm

is shorter than

is the same as

is longer than

Varied Fluency 4

Fill in the blanks to make the statements true.

36 centimetres is the same as 36cm

96 centimetres is longer than 63cm

49cm is shorter than 56cm

Varied Fluency 1

True or false? Charlotte's piece of ribbon is the longest.

Jan	1m 25cm
Charlotte	130cm 50mm
Hasan	145cm

Varied Fluency 1

True or false? Charlotte's piece of ribbon is the longest.

Jan	1m 25cm
Charlotte	130cm 50mm
Hasan	145cm

False, Hasan's is the longest.

Varied Fluency 2

Three children measure their height.



Ethan
155cm



Sobia
1m 45cm



Ali
130cm 20mm

- A) Who is shortest?**
- B) Who is tallest?**
- C) Who is taller than Ali?**

Varied Fluency 2

Three children measure their height.



Ethan
155cm



Sobia
1m 45cm



Ali
130cm 20mm

- A) Who is shortest?**
- B) Who is tallest?**
- C) Who is taller than Ali?**

- A) Ali**
- B) Ethan**
- C) Sobia and Ethan**

Varied Fluency 3

Order these lengths from shortest to longest.

A	3m 220mm
B	3m 55cm
C	320cm

Varied Fluency 3

Order these lengths from shortest to longest.

A	3m 220mm
B	3m 55cm
C	320cm

C 320cm, A 3m 220mm, B 3m 55cm

Varied Fluency 4

Three children measure the length of their feet. Order them from shortest to longest. Use the $<$ symbol in your ordering.



Zain

**10cm
40mm**



Victoria

**10cm
30mm**



Amanda

**0cm
150mm**

Varied Fluency 4

Three children measure the length of their feet. Order them from shortest to longest. Use the $<$ symbol in your ordering.



Zain

**10cm
40mm**



Victoria

**10cm
30mm**



Amanda

**0cm
150mm**

Victoria 10cm 30mm $<$ Zain 10cm 40mm $<$ Amanda 0cm 150mm

Problem Solving 1

Susan's ribbon is 59cm long and is shorter than Saffron's.
Toby's ribbon is the longest and measures 100cm.

48cm

73cm

1m

Choose which measurement could describe Saffron's ribbon.

Problem Solving 1

Susan's ribbon is 59cm long and is shorter than Saffron's.
Toby's ribbon is the longest and measures 100cm.

48cm

73cm

1m

Choose which measurement could describe Saffron's ribbon.

Problem Solving 2

Arrange the cards below in the following template to create three true statements.

Three dashed rectangular boxes for statements, arranged horizontally.

>

30m

<

68cm

68m

Problem Solving 2

Arrange the cards below in the following template to create three true statements.

Three dashed rectangular boxes arranged horizontally, intended for placing mathematical statements.

>

30m

<

68cm

68m

Various answers, for example:

30m < 68m, 68cm < 68m, 68m > 30m

Reasoning 1

Sara uses a tape measure to find the length of three sand pits.

Pit A is 2m long, Pit B is 3m long and Pit C is 4m long.

Sara says,



Pit B is the smallest sand pit.

Is she correct? Explain how you know.

Reasoning 1

Sara uses a tape measure to find the length of three sand pits.

Pit A is 2m long, Pit B is 3m long and Pit C is 4m long.

Sara says,



Pit B is the smallest sand pit.

Is she correct? Explain how you know.

Sara is not correct because...

Reasoning 1

Sara uses a tape measure to find the length of three sand pits.

Pit A is 2m long, Pit B is 3m long and Pit C is 4m long.

Sara says,



Pit B is the smallest sand pit.

Is she correct? Explain how you know.

Sara is not correct because 2m is smaller than 3m, so Pit A is the smallest sand pit.

Problem Solving 1

Write 3 comparison statements based on the length of these items.

dog's lead	1m 20mm
piece of ribbon	115cm 10mm
table	60cm 970mm

Problem Solving 1

Write 3 comparison statements based on the length of these items.

dog's lead	1m 20mm
piece of ribbon	115cm 10mm
table	60cm 970mm

Various answers, for example:

The table is longer than the dog's lead.

The dog's lead is shorter than the piece of ribbon.

The table is longer than the piece of ribbon.

Reasoning 1

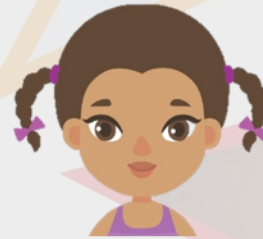
Pierre says,



My tower of building blocks is longer because it is 102cm 150mm.

Gabriela says,

My tower of building blocks is longer because it is 1m 23cm.



Who is correct? Explain your answer.

Reasoning 1

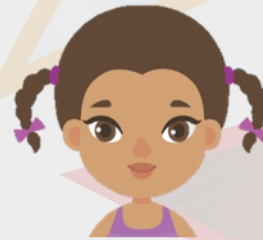
Pierre says,



My tower of building blocks is longer because it is 102cm 150mm.

Gabriela says,

My tower of building blocks is longer because it is 1m 23cm.



Who is correct? Explain your answer.

Gabriella is correct because...

Reasoning 1

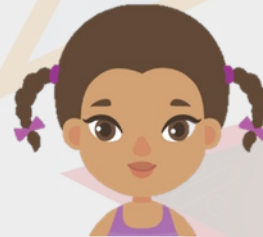
Pierre says,



My tower of building blocks is longer because it is 102cm 150mm.

Gabriela says,

My tower of building blocks is longer because it is 1m 23cm.



Who is correct? Explain your answer.

Gabriella is correct because 1m 23cm is longer than 102cm 150mm or 1m 17cm.

Reasoning 2

Is the following statement correct?

70m

<

7,000cm

Explain your answer.

Reasoning 2

Is the following statement correct?

70m

<

7,000cm

Explain your answer.

No it is not correct because...

Reasoning 2

Is the following statement correct?

70m

<

7,000cm

Explain your answer.

No it is not correct because $7,000\text{cm} = 70\text{m}$.