

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

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

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

More [Year 2 and Year 3 Length, Height and Perimeter](#) Resources.

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

Step 3

Year 3: Equivalent Lengths - mm and cm

Introduction

**1cm is equal to 10mm.
Use this information to complete these conversions.**



$$20\text{mm} = \square \text{ cm}$$

$$\square \text{ mm} = 4\text{cm}$$

$$300\text{mm} = \square \text{ cm}$$

Introduction

**1cm is equal to 10mm.
Use this information to complete these conversions.**



$$20\text{mm} = \boxed{2} \text{ cm}$$

$$\boxed{40} \text{ mm} = 4\text{cm}$$

$$300\text{mm} = \boxed{30} \text{ cm}$$

Varied Fluency 1

Complete the bar model:

83mm	
cm	mm

Varied Fluency 1

Complete the bar model:

83mm	
cm	mm

Various possible answers, including:

8cm 3mm

7cm 13mm

6cm 23mm

Varied Fluency 2

Join the equivalent lengths:

48mm

93mm

56mm

4cm 8mm

721mm

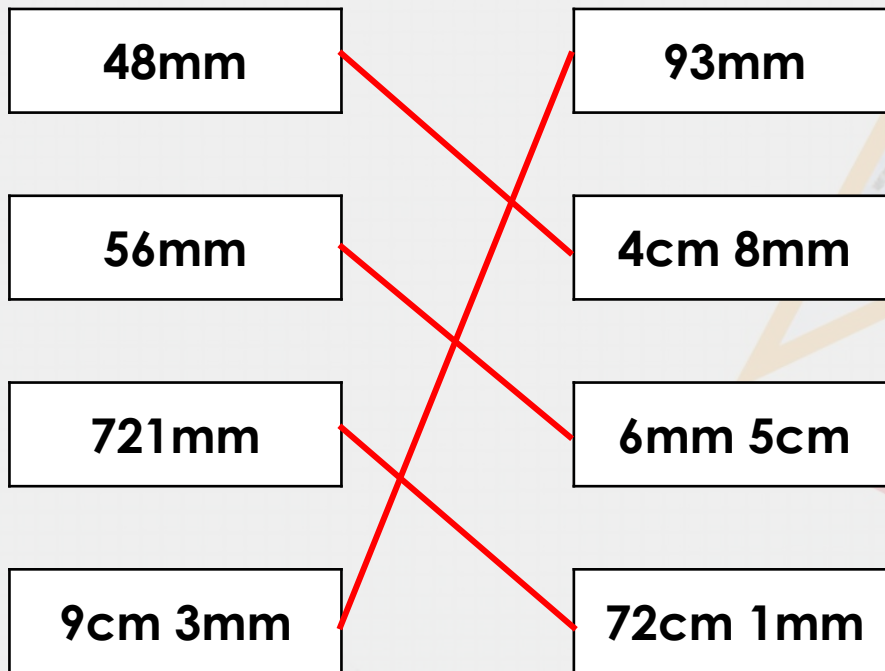
6mm 5cm

9cm 3mm

72cm 1mm

Varied Fluency 2

Join the equivalent lengths:



Varied Fluency 3

Circle the longest length:

7cm 4mm

733mm

8cm 13mm

9cm 0mm

Varied Fluency 3

Circle the longest length:

7cm 4mm

733mm

8cm 13mm

9cm 0mm

Varied Fluency 4

Tick the fish that are the same length as the one below:



98mm



9cm 18mm



9cm 8mm



8cm 18mm

Varied Fluency 4

Tick the fish that are the same length as the one below:



98mm



9cm 18mm



9cm 8mm



8cm 18mm

Reasoning 1

Who is correct? Prove it.



Asad

My pet snake is the longest.
It is 889mm long.

My pet snake is the longest.
It is 89cm 9mm long.



Sam

Reasoning 1

Who is correct? Prove it.



Asad

My pet snake is the longest.
It is 889mm long.

My pet snake is the longest.
It is 89cm 9mm long.



Sam

Sam is correct because...

Reasoning 1

Who is correct? Prove it.



Asad

My pet snake is the longest.
It is 889mm long.



Sam

My pet snake is the longest.
It is 89cm 9mm long.

Sam is correct because his snake is 89cm 9mm long which is equal to 899mm. 899mm is longer than 889mm.

Reasoning 2

Spot 2 mistakes. Explain your answer.

cm and mm	mm
25cm and 6mm	256mm
5cm and 8mm	58mm
9cm and 8mm	88mm
8cm and 2mm	28mm
53cm and 1 mm	531mm

Reasoning 2

Spot 2 mistakes. Explain your answer.

cm and mm	mm
25cm and 6mm	256mm
5cm and 8mm	58mm
9cm and 8mm	88mm
8cm and 2mm	28mm
53cm and 1 mm	531mm

9cm and 8mm and 8cm and 2mm are wrong because...

Reasoning 2

Spot 2 mistakes. Explain your answer.

cm and mm	mm
25cm and 6mm	256mm
5cm and 8mm	58mm
9cm and 8mm	88mm
8cm and 2mm	28mm
53cm and 1 mm	531mm

9cm and 8mm and 8cm and 2mm are wrong because 9cm and 8mm is equivalent to 98mm and 8cm and 2mm is equivalent to 82mm.

Problem Solving 1

Find the odd one out.

814mm



81cm 4mm



80cm 14mm



8cm 14mm



Write an equivalent length for the odd one out.

Problem Solving 1

Find the odd one out.

814mm



81cm 4mm



80cm 14mm



8cm 14mm



Write an equivalent length for the odd one out.

The pencils are the odd one out.

An equivalent length is 94mm.