

## Year 1/2 – Spring Block 3 – Length and Height – Step 6

### 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](#)

More [Year 1 and 2 Length and Height](#) resources.

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

# Step 6

# Year 2: Four Operations with Length

## Introduction

$$9 + 5 =$$

12

$$25 - 12 =$$

13

$$3 \times 5 =$$

14

$$24 \div 2 =$$

15

Y2

## Introduction

$9 + 5 =$

12

$25 - 12 =$

13

$3 \times 5 =$

14

$24 \div 2 =$

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Y2

Varied Fluency 1

Eva has a pencil that is 40cm long. Poppy's pencil is 4 times shorter than Eva's.



Circle how long Poppy's pencil is.

14cm

10cm

4cm

*not to scale*

Y2

Varied Fluency 1

Eva has a pencil that is 40cm long. Poppy's pencil is 4 times shorter than Eva's.



Circle how long Poppy's pencil is.

14cm

10cm

4cm

*not to scale*

Y2

## Varied Fluency 2

**True or false?**  
**The tallest tower is 16cm taller than the shortest flower.**



**18cm**



**22cm**



**6cm**

*not to scale*

**Y2**

## Varied Fluency 2

**True or false?**

**The tallest tower is 16cm taller than the shortest flower.**



**18cm**



**22cm**



**6cm**

**True.  $22 - 6 = 16$**   
*not to scale*



Varied Fluency 3

**The cactus is 3m tall.**



**How tall will the cactus be if it grows double in height?**

*not to scale*

Varied Fluency 3

The cactus is 3m tall.



How tall will the cactus be if it grows double in height?

**6m**

*not to scale*

Varied Fluency 4

Which two objects added together total 80cm?



carrot  
22cm



baguette  
59cm



banana  
21cm

*not to scale*

Varied Fluency 4

Which two objects added together total 80cm?



carrot  
22cm



baguette  
59cm



banana  
21cm

The baguette and the banana.  $59 + 21 = 80$ .

*not to scale*

## Problem Solving 1

**Rosie and Jim are threading beads onto string.  
Rosie's string is 20cm long.  
Jim's string is longer than Rosie's.**

**When added together, their string measures between 51cm and 54cm long.**

**How long could Jim's string be?**

## Problem Solving 1

**Rosie and Jim are threading beads onto string.  
Rosie's string is 20cm long.  
Jim's string is longer than Rosie's.**

**When added together, their string measures between 51cm and 54cm long.**

**How long could Jim's string be?**

**Various possible answers; 31cm, 32cm, 33cm and 34cm.**

## Reasoning 1

Is Ella correct? Explain why.



I have a piece of rope that is 10cm long. Todd's rope is 5 times longer than mine. Together, our ropes are 55cm long.

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Is Ella correct? Explain why.



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Ella is incorrect because...



## Reasoning 1

Is Ella correct? Explain why.



I have a piece of rope that is 10cm long. Todd's rope is 5 times longer than mine. Together, our ropes are 55cm long.

**Ella is incorrect because...**

$$10 \times 5 = 50$$

$$50 + 10 = 60\text{cm}$$

## Problem Solving 2

**Stan is building towers using forty 1cm cubes.**

**His first tower is 22cm tall.**

**His second tower is half the size of the first tower.**

**How tall is the second tower?**

**How many cubes does he have left?**

## Problem Solving 2

Stan is building towers using forty 1cm cubes.

His first tower is 22cm tall.

His second tower is half the size of the first tower.

How tall is the second tower? **11cm**

How many cubes does he have left? **7 cubes**