

Disclaimer/s

We hope you find the information on our website and resources useful.

Animations

This resource has been designed with animations to make it as fun and engaging as possible. To view the content in the correct formatting, please view the PowerPoint in 'slide show mode'. This takes you from desktop to presentation mode. If you view the slides out of 'slide show mode', you may find that some of the text and images overlap each other and/or are difficult to read.

To enter slide show mode, go to the **slide show menu tab** and select either **from beginning** or **from current slide**.



Maths

Measuring Length and Height

Need a coherently planned sequence of lessons to complement this resource?

The image shows three overlapping documents from Twinkl Planit. The leftmost document is a 'Lesson Breakdown' for 'Money (1): The Coin Collector', 'Money (2): Show Me the Money', and 'Combination of Coins (1): The Coin Exchange'. The middle document is an 'Introduction' to the 'Measurement' unit, detailing resources, assessment statements, and learning objectives. The rightmost document is a 'Measurement Steps to Progression Overview' for Year 2, showing a grid of topics across 12 weeks, categorized by seasons (Autumn, Spring, Summer).

Lesson Breakdown

Below is our suggestion for the most coherent and progressive sequence to teach this area of Planit Maths steps on the White Rose Maths scheme of learning although we have not aimed to mirror the exact order in the scheme.

Money (1): The Coin Collector

This metal detecting-themed lesson teaches children to recognise coins and their physical features of coins, learn how some measure pence and some pounds through a fun 'Snag' and board game. Children learn to **compare money** and make different money totals. They also learn facts about time, compare and order time intervals and tell the time on an analogue clock to the nearest five minutes.

Please note: this content is being updated for 2021. For now, please use the current version.

NC Statement: Recognise and use symbols for pounds (£) and pence (p).

Money (2): Show Me the Money

This lesson focuses on finding the right combination of coins to make a given amount of money. Children learn to **count money** to find a total and **select money** to make a given amount.

Please note: this content is being updated for 2021. For now, please use the current version.

NC Statement: Combine amounts to make a particular value.

Combination of Coins (1): The Coin Exchange

This fun lesson allows children to use their knowledge of multiples to count money and then move on to exploring how different combinations of coins can be used to make the same value. Children are challenged to investigate how many different ways they can **count money** and **make the same amount** of money using different coins.

Please note: this content is being updated for 2021. For now, please use the current version.

NC Statement: Find different combinations of coins that equal the same amounts of money.

Introduction

This unit will further develop children's concept of measurement in length and height, capacity, weight, money and time. The children use standard units of measure and apply their skills of measuring and recording in a wide range of familiar contexts. They learn the vocabulary they will need to compare and order measurements and develop their reasoning skills through solving practical problems. Children learn the symbols for pounds and pence and make different money totals. They also learn facts about time, compare and order time intervals and tell the time on an analogue clock to the nearest five minutes.

Resources

- Measuring tools including rulers, scales, thermometers and measuring vessels
- Clocks
- Coins

Assessment Statements

By the end of this unit:

children working towards the expected level will be able to:

- use standard units to estimate and measure length/height (cm/m), mass (g/kg), temperature (°C), capacity (litres/ml) accurately;
- compare and order length, mass, volume/capacity using the language more than, less than and equal to;
- read scales on rulers, scales, thermometers, and measuring vessels in divisions of ones;
- recognise the symbols for pounds (£) and pence (p) and know the value of different coins;
- solve simple, practical one-step measurement problems with all four operations.

children working at the expected level will be able to:

- use standard units to estimate and measure length/height (cm/m), mass (g/kg), temperature (°C), capacity (litres/ml) to the nearest accurate unit;
- compare and order length, mass, volume/capacity using the symbols >, = and <;
- read scales on rulers, scales, thermometers, measuring vessels in divisions of ones, tens and hundreds;
- recognise the symbols for pounds (£) and pence (p) and use different coins to make the same amount of money;
- read and write the time on an analogue clock to the nearest 5 minutes;
- know there are sixty minutes in one hour and twenty-four hours in one day;

Measurement

Maths | Year 2 | Steps to Progression Overview

The aim of this overview is to support teachers using Planit Maths to show the most coherent and progressive sequence to teach each area of maths. We also want to fully support teachers who use the White Rose Maths scheme of learning to make full use of the resources available within Planit Maths. Wherever possible, lesson packs have been matched to each of the small steps on the White Rose Maths scheme of learning.

Yearly Overview

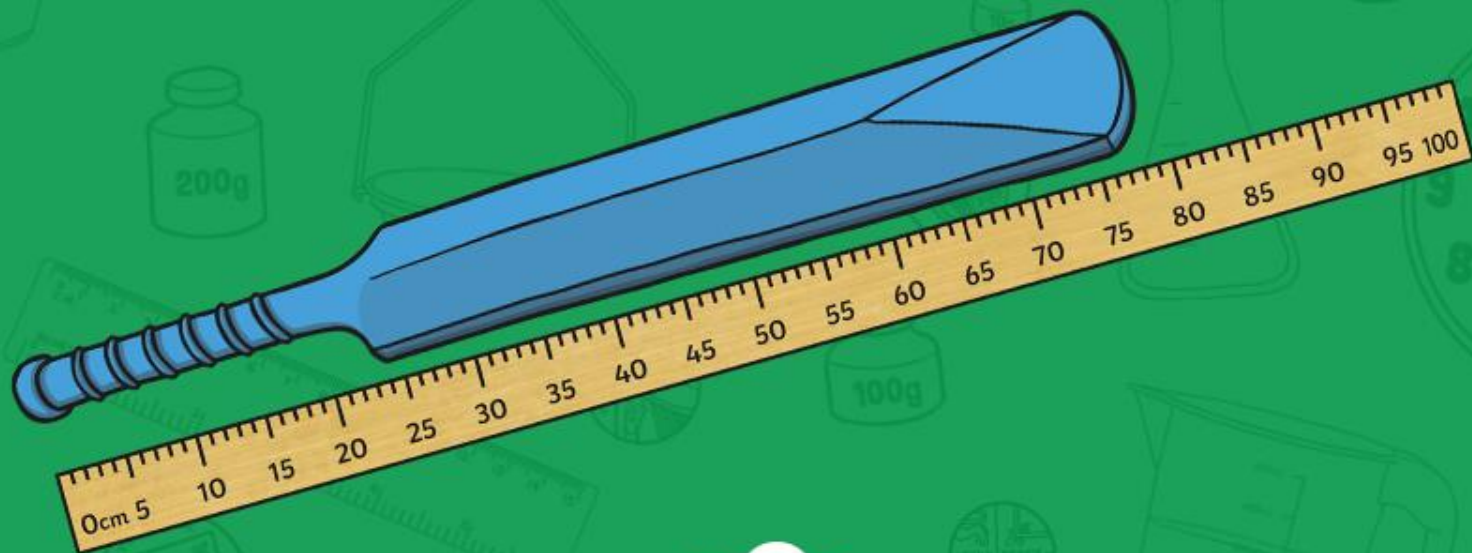
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value		Number: Addition and Subtraction			Measurement: Money		Number: Multiplication and Division				
Spring	Number: Multiplication and Division		Statistics		Geometry: Properties of Shape			Number: Fractions		Measurement: Length and Height		
Summer	Position and Direction		Problem Solving and Efficient Methods		Measurement: Time		Measurement: Mass, Capacity and Temperature		Investigations			

See our [Measurement Steps to Progression](#) document.

Twinkl Planit is our award-winning scheme of work with over 4000 resources.



Estimating Length and Height



Aim

- To estimate length or height using a partially-numbered ruler.

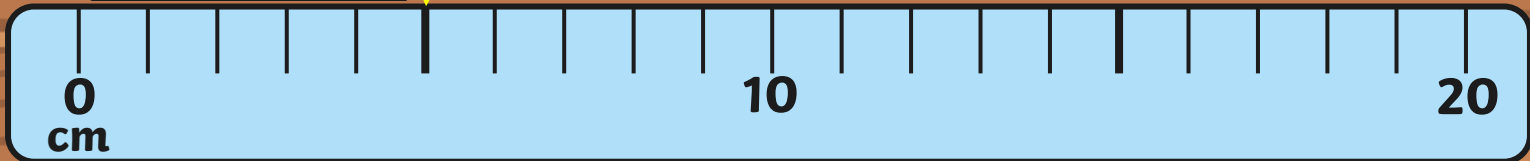
Success Criteria

- I can identify numbers up to 100cm on a marked ruler.
- I can use my reasoning skills to estimate lengths and heights on an unmarked ruler.

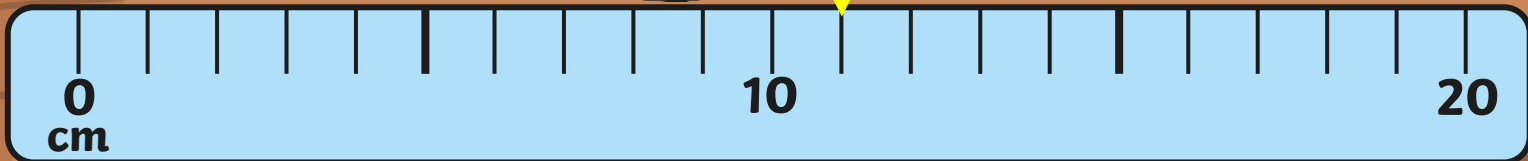
Remember It



Which is the **shortest** object? Explain how you know.



The battery is the **shortest**. It is 5cm long because it is halfway between 0cm and 10cm.

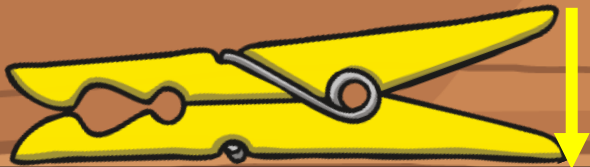


The spoon is 11cm long because it is 1cm more than 10cm.

Remember It



Which is the longest object? Explain how you know.

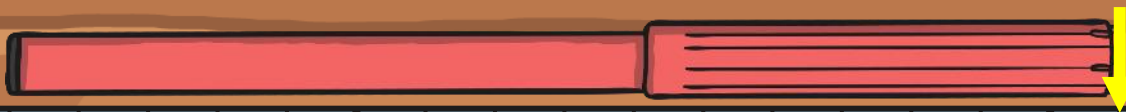


0
cm

10

20

The peg is 8cm long because it is 2cm less than 10cm.



0
cm

10

20

The pen is the **longest**. It is 16cm long because it is 1cm more than 15cm.

Missing Measurements



Look carefully at this ruler. What do you notice?



This ruler (or 'metre stick') measures centimetres in multiples of 10, up to 100cm (one metre).

What do you think the unmarked lines show?

How can we measure an object with this ruler?

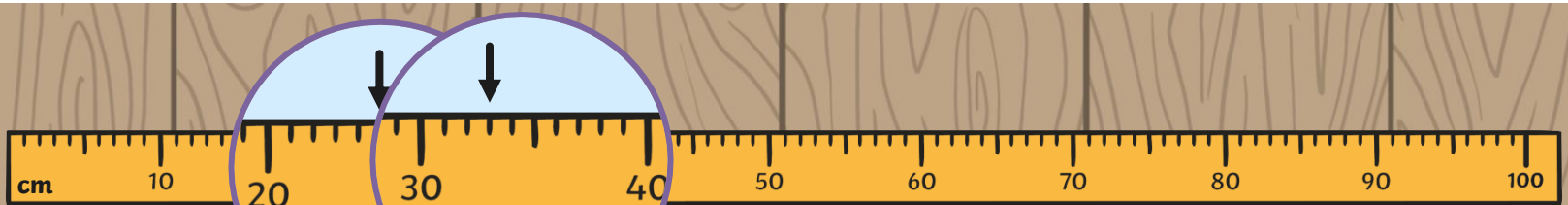
Think about the 0 to 100 number line to help you.



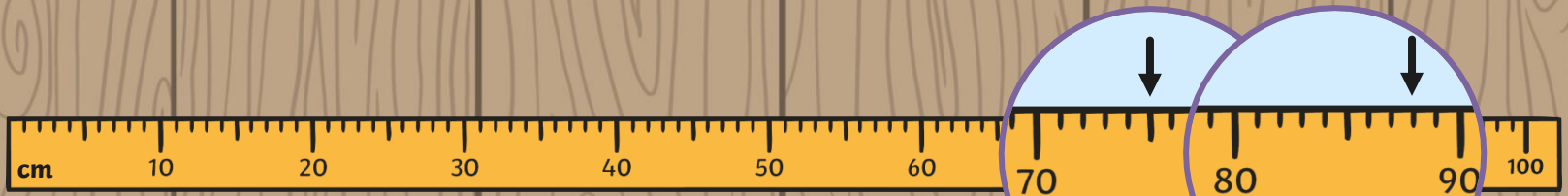
Missing Measurements



What measurement is each arrow pointing at?
How do you know?



The arrow is pointing at 33cm. You can check by counting on from 30cm.

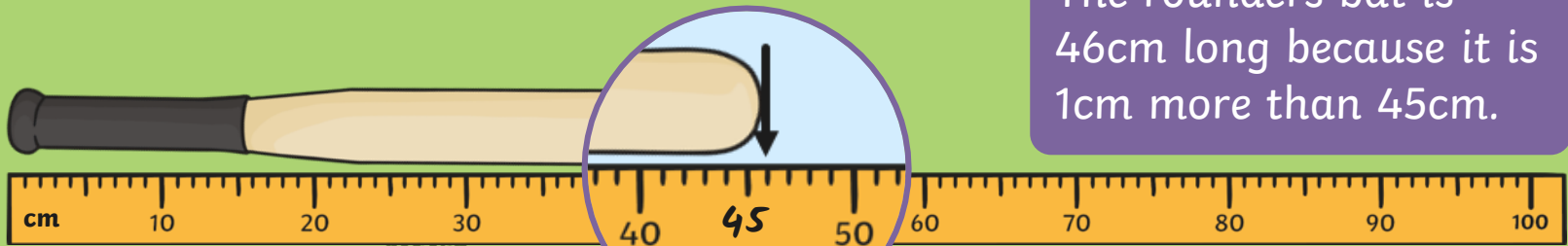


The arrow is pointing at 88cm. You can check by counting back from 90cm.

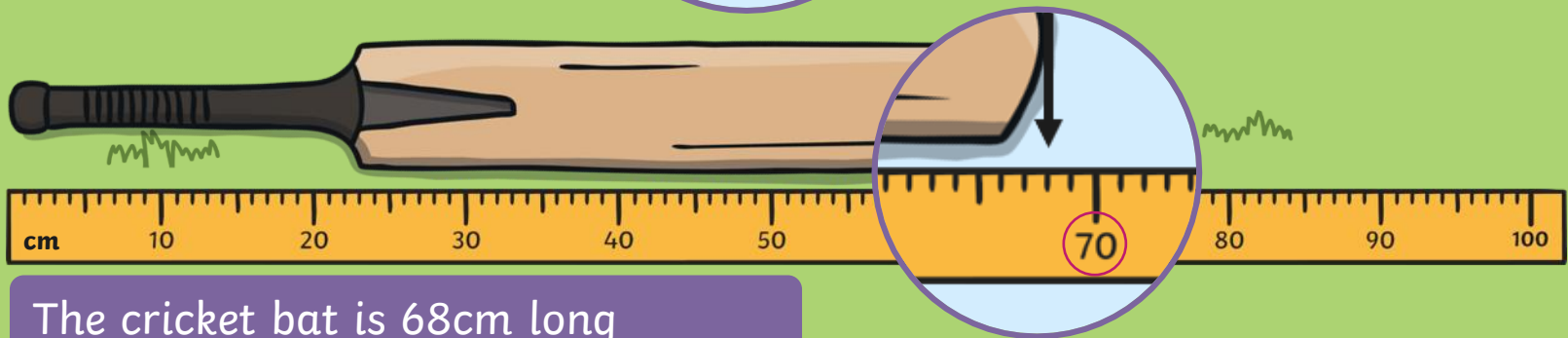
Missing Measurements



How long are these bats? Explain how you know.



The rounders bat is 46cm long because it is 1cm more than 45cm.



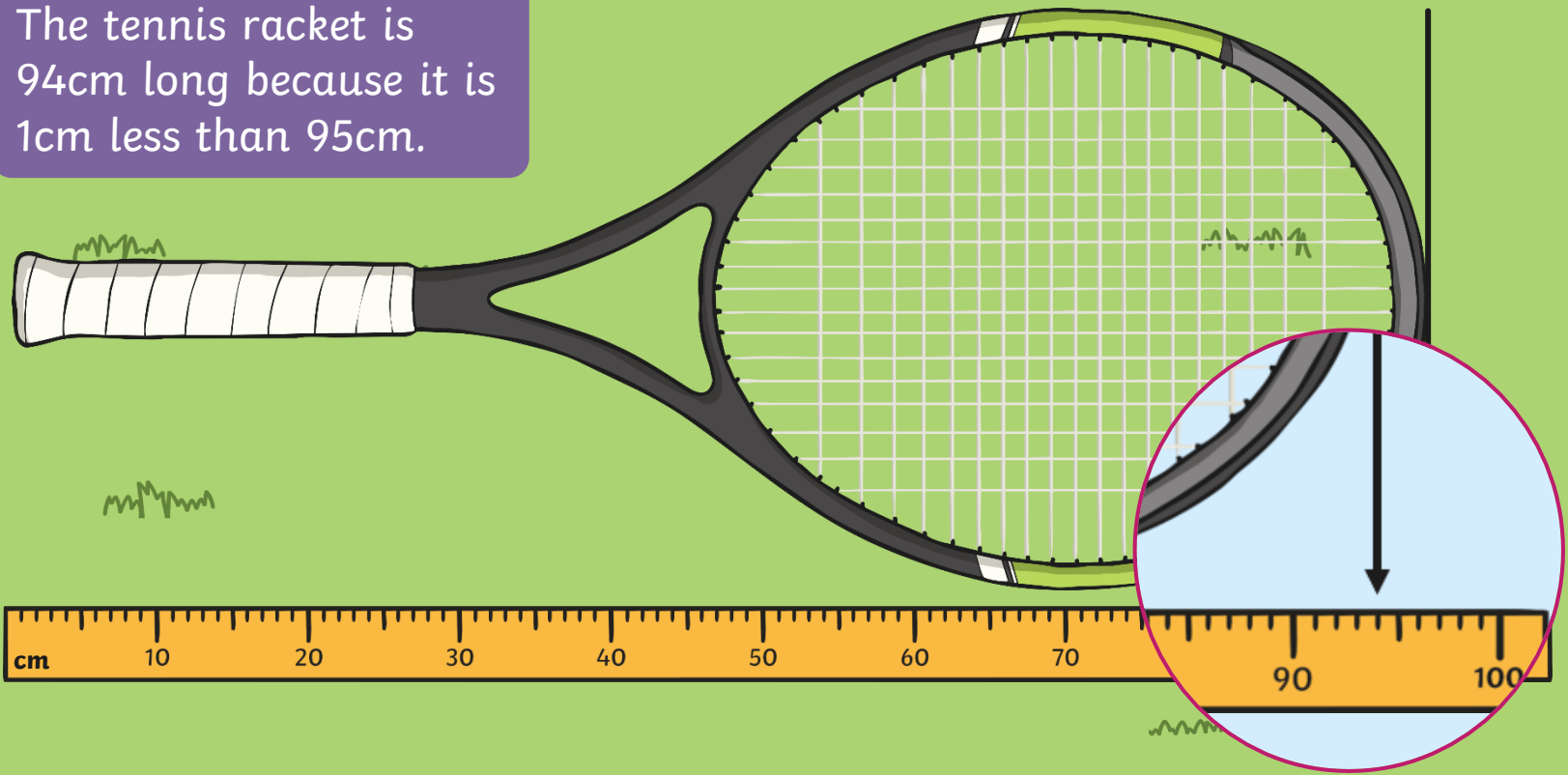
The cricket bat is 68cm long because it is 2cm less than 70cm.

Missing Measurements



How long is this racket? Explain how you know.

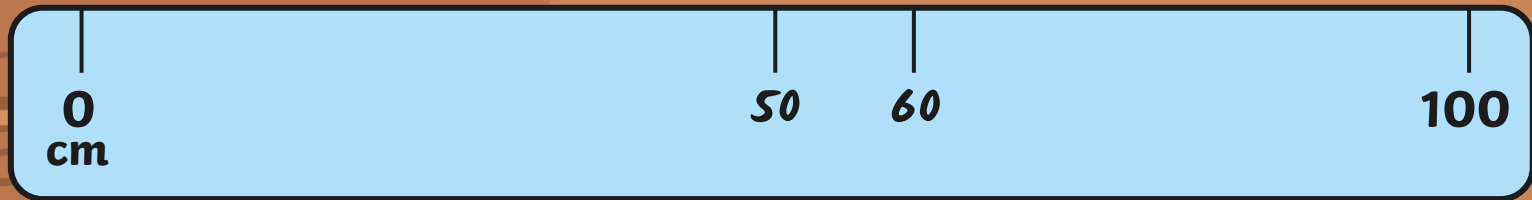
The tennis racket is 94cm long because it is 1cm less than 95cm.



Missing Measurements



This ruler is 100cm long.



How could we use this ruler to **estimate** length?

Which other numbers could we mark to help us?
a sensible guess.

We could add 50cm, halfway between 0cm and 100cm.

This will help us to **estimate** other between these markings.

Where would 60cm go?

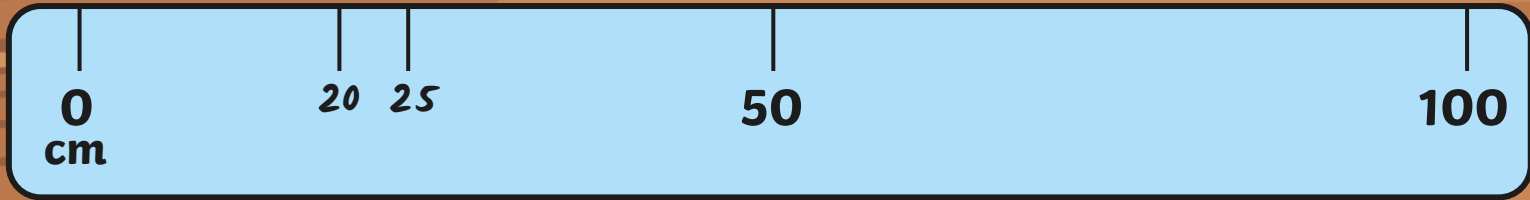
60cm would be just over halfway because it is 10cm more than 50cm.



Estimating Length and Height



If I am measuring something that is 20cm long, where might you **estimate** it to be on the ruler?



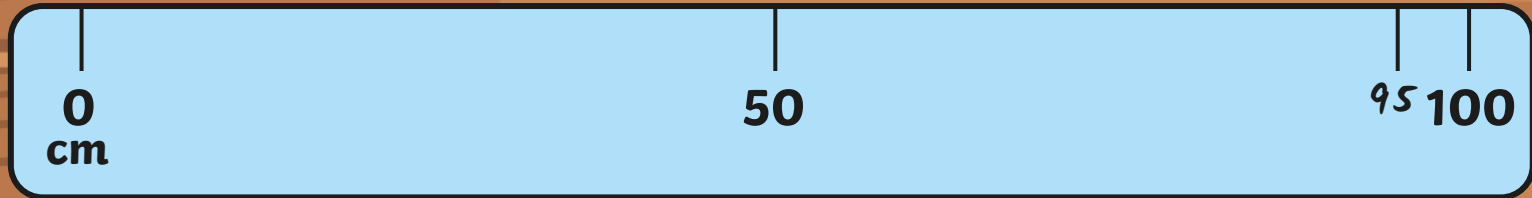
20cm is just less than 25cm so it will go about here.



Estimating Length and Height



If I am measuring something that is 95cm long, where might you **estimate** it to be on the ruler?



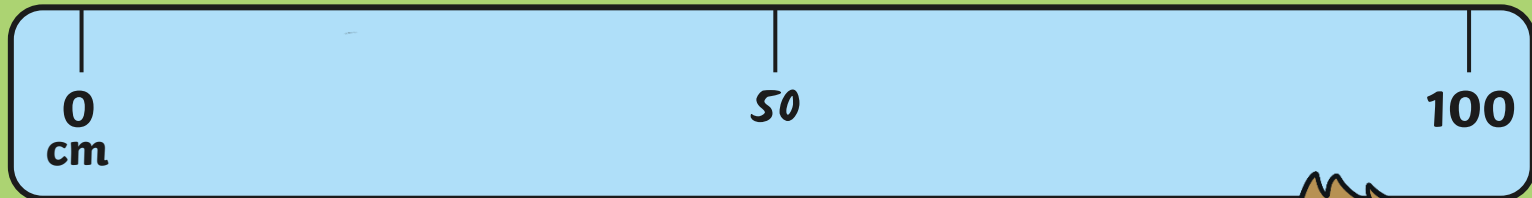
95cm would be about here because it is 5cm less than 100cm.



Estimating Length and Height



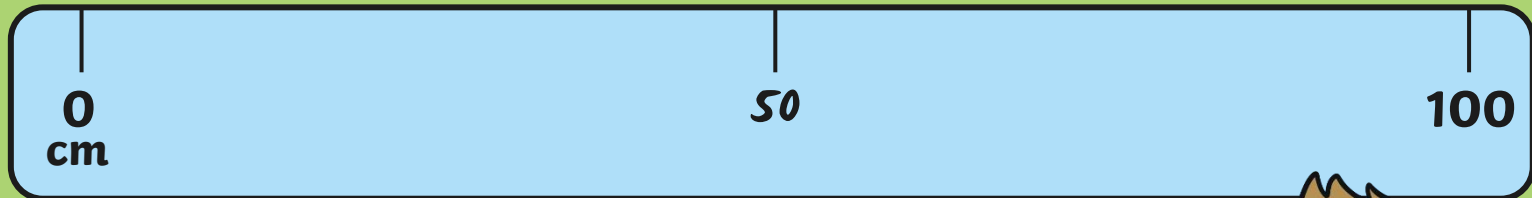
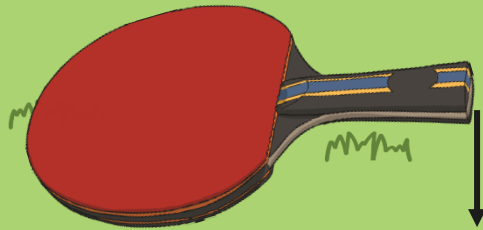
Estimate the length of the hockey stick and the table tennis bat.
What measurement can we mark on to help us?



I **estimate** that the hockey stick is 75cm long because it is about **halfway** between 50cm and 100cm.



Estimating Length and Height



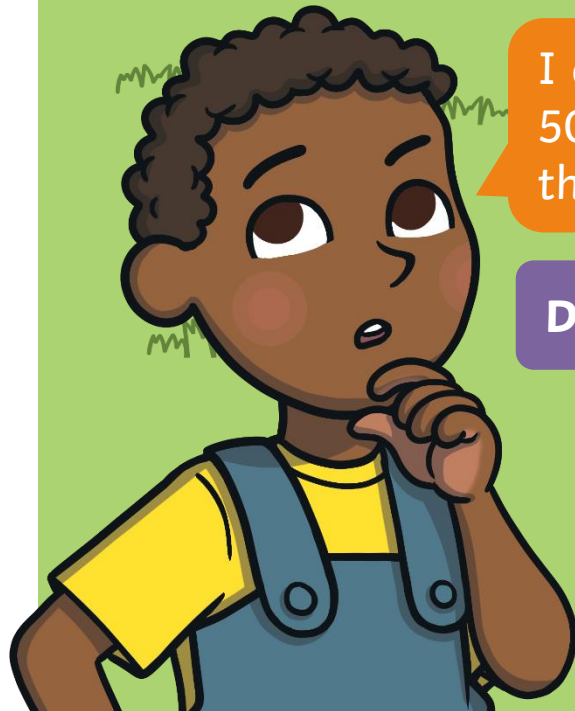
I estimate that the key is 30cm long because it is just over halfway between 0cm and 50cm.



Estimating Length and Height

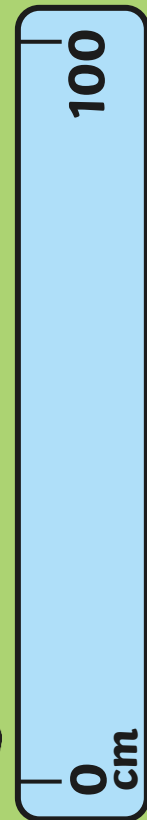


Estimate the height of the cone.



I estimate that the cone is 50cm tall because it is half the height of the ruler.

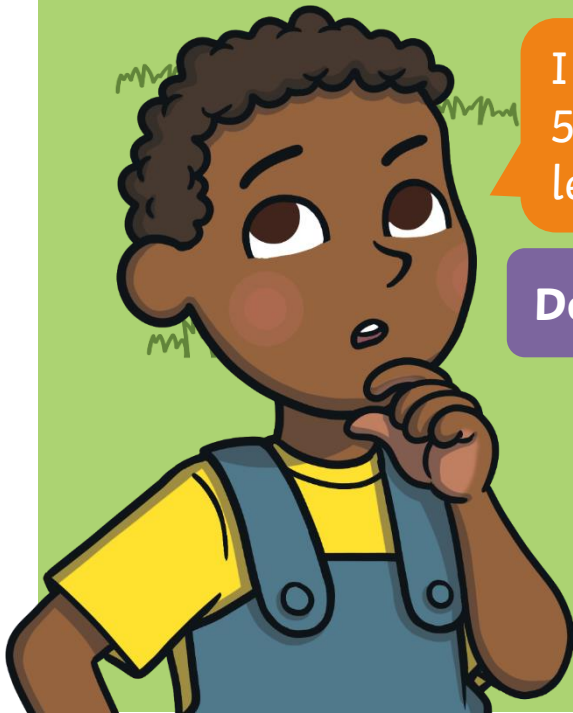
Do you agree? Explain why.



Estimating Length and Height



Estimate the height of the cricket stumps.

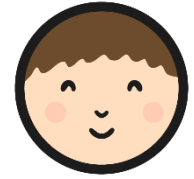


I think the stumps are 50cm tall because 50cm is less than 100cm.

Do you agree? Explain why.



Activity Sheets



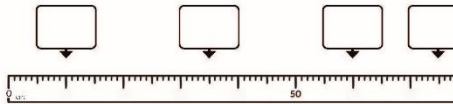
Measuring Up

To estimate length or height using a partially numbered ruler.

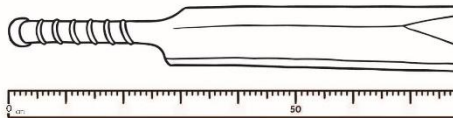
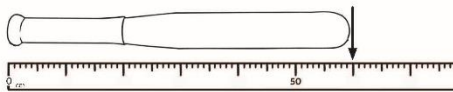
These rulers are not to scale.

Label these measurements on the ruler.

35cm 10cm 75cm 60cm



Measure these objects.



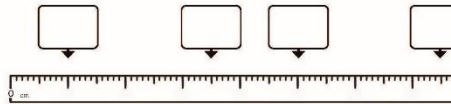
Measuring Up

To estimate length or height using a partially numbered ruler.

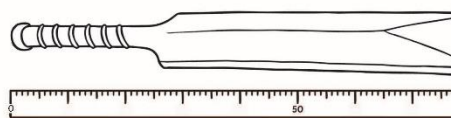
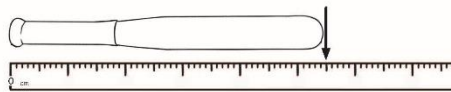
These rulers are not to scale.

Label these measurements on the ruler.

50cm 35cm 10cm 75cm



Measure these objects.



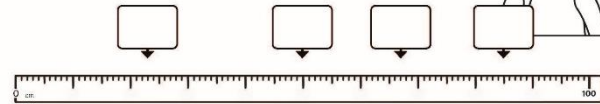
Measuring Up

To estimate length or height using a partially numbered ruler.

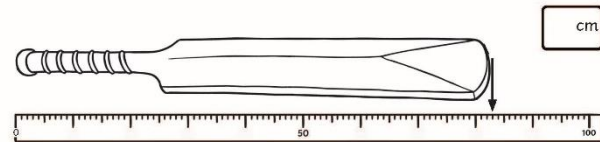
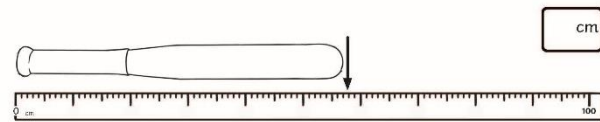
These rulers are not to scale.

Label these measurements on the ruler.

50cm 23cm 85cm 67cm



Measure these objects.



Diving into Mastery

Dive in by completing your own activity!



Estimating Length and Height

Measure the bats.

0cm 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

0cm 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Estimate the height of the cones.

100cm

100cm

100 cm

100 cm

The activity sheet is divided into three sections. The first section, 'Estimating Length and Height', has a green header and a blue submarine icon. It contains two rows for measuring bats. The first row shows a wooden bat above a ruler from 0 to 100 cm, with a pink box for the measurement. The second row shows a blue bat above a similar ruler, with an orange box for the measurement. The second section, 'Estimate the height of the cones', has an orange header. It shows two orange traffic cones. The larger cone is next to a yellow ruler with a height of 100 cm and an orange box for estimation. The smaller cone is next to a similar ruler with a height of 100 cm and an orange box for estimation. The bottom of the sheet shows two more yellow rulers, each with a 100 cm mark and a box for estimation.

Measurement Match-Up



Can you match the measurements to the correct place on the ruler?



50

75

100

0

25

Challenge!

Now that we have marked those measurements to help us, where should these be placed?

10

80

30

Aim



- To estimate length or height using a partially-numbered ruler.

Success Criteria

- I can identify numbers up to 100cm on a marked ruler.
- I can use my reasoning skills to estimate lengths and heights on an unmarked ruler.



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