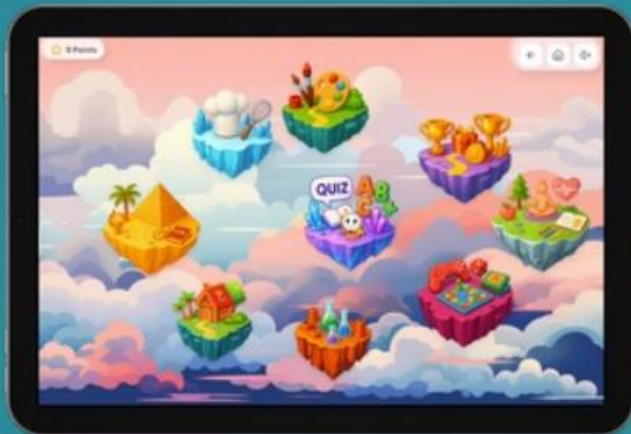




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Measurement: Length

Table of Contents	
Presentation: Measurement: Length	
Classroom Display: Length Measurement Toolkit	
Activity: Ruler Rally Board Game Pack	
Activity: Unit Match Challenge	
Activity: Estimate, Measure, Order	
Worksheet: Centimetre Measuring - Read the Ruler	
Worksheet: Centimetre Measuring - Classroom Objects	
Worksheet: Metre Measuring - Around the Room	
Worksheet: Choosing Centimetres or Metres	
Worksheet: Compare and Order Lengths	
Worksheet: Length Word Problems and Reasoning	
Quiz: Measurement: Length	
Assessment: Measuring and Comparing Length	
Rubric: Year 3 Measurement: Length Rubric	



Length Measurement Toolkit

Length tells us how long or tall something is from one end to the other.

Units We Use

- centimetres (cm): small objects
- metres (m): larger objects and longer spaces
- $100 \text{ cm} = 1 \text{ m}$



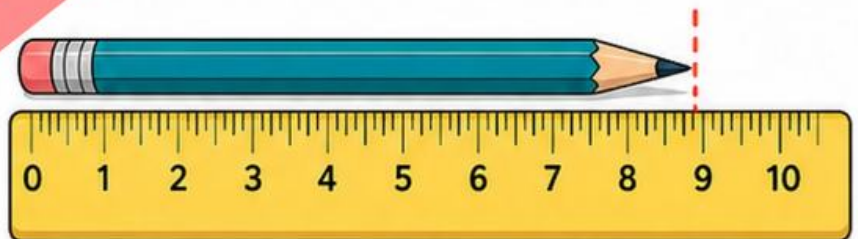
Measuring Tools

- ruler: centimetres
- metre ruler or tape: metres



Measure Carefully

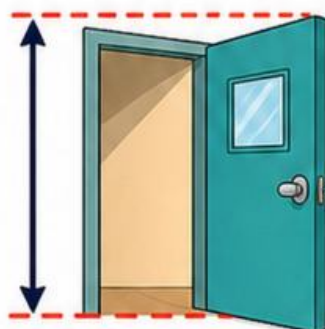
- Start at zero
- Keep the tool straight
- No gaps or overlaps
- Read the mark at the end
- Write the number and unit



Compare and Estimate

Use words like longer than, shorter than and the same length as.

Make a sensible estimate before measuring.



Ruler Rally



1

Draw an Object Card

2

Draw an Object Card

3

Measure and Match

4

Draw an Object Card

5

Draw an Object Card

6

Try Again

7

Draw an Object Card

8

Draw an Object Card

19

Draw an Object Card

20

Check with a Partner

Student Instructions

1. Roll the dice.
2. Pick one Object Card.
3. Measure the object with a ruler.
4. Find the matching Measurement Card.
5. If you are correct, keep the card and move.
6. First player to FINISH wins.



Materials

- dice
- counters
- Object Cards
- Measurement Cards
- recording sheet

18

Move Ahead 1

17

Draw an Object Card

16

Draw an Object Card

15

Try Again

14

Draw an Object Card

13

Draw an Object Card

13

Draw an Object Card

12

Measure and Match



11

Draw an Object Card



FINISH

Ruler Rally Object Cards

Cut out the cards. Measure or match each object during the game.



1

pencil



2

crayon



3

glue stick



4

eraser



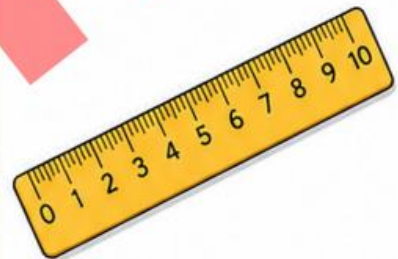
5

scissors



6

ruler



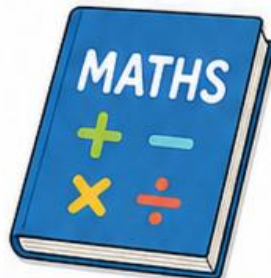
7

notebook



8

maths book



9

bookmark



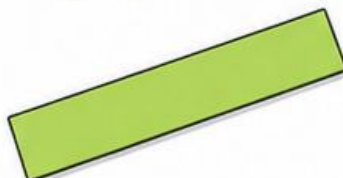
10

spoon



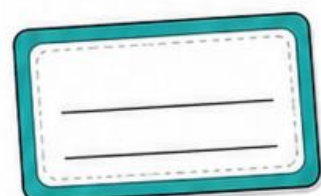
11

paper strip



12

name card



Ruler Rally



Measurement Cards

Match the object to the closest sensible measurement.



5 cm

6 cm

7 cm

8 cm

9 cm

10 cm

11 cm

12 cm

13 cm

14 cm

15 cm

16 cm



Ruler Rally Recording Sheet

Round	Object Card	Measurement Card	Match? yes/no
1			
2			
3			
4			
5			
6			

Unit Match Challenge Cards

Cut out the cards. Decide whether each object is best measured in cm or m.

1

pencil



2

classroom door



3

book



4

playground path



5

shoe



6

school hallway



7

rubber



8

basketball court



9

ruler



10

reading carpet



11

whiteboard



12

desk



13

glue stick



14

library shelf



15

skipping rope



16

wall display



17

lunchbox



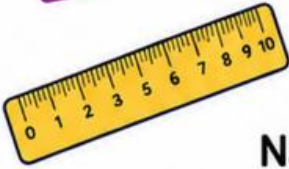
18

sports field



Unit Match Challenge

Recording Mat



Name: _____

Student Instructions

1. Pick one Object Card.
2. Decide: should it be measured in cm or m?
3. Place it in the matching unit zone.
4. Explain your choice.
5. Score one point for each sensible choice.



centimetres (cm)

small objects

metres (m)

larger objects and long spaces

Object	My Unit	My Reason	Partner Check
1			
2			
3			
4			
5			
6			

Estimate, Measure, Order Cards

Draw three cards. Estimate, measure and order them from shortest to longest.



1 pencil



2 notebook



3 desk



4 door



5 window



6 backpack



7 shoe



8 water bottle



9 classroom wall



10 ribbon



11 paper strip



12 teacher table



13 library shelf



14 hallway

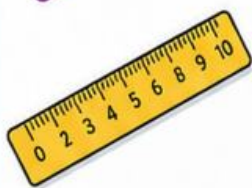


15 sports court



ESTIMATE, MEASURE, ORDER

Recording Sheet



Name: _____

Student Instructions

- 1 Draw three Object Cards.
- 2 Estimate the length of each object.
- 3 Measure each object using the best tool.
- 4 Record cm or m.
- 5 Order the objects from shortest to longest.
- 6 Score your points.

Round Recording

Round	Object	Estimate	Actual Measurement	Unit	Order 1-3	Points
1 Round 1	Object 1					
	Object 2					
	Object 3					
2 Round 2	Object 1					
	Object 2					
	Object 3					
3 Round 3	Object 1					
	Object 2					
	Object 3					

Scoring

- ★ 1 point: sensible estimate
- ★ 1 point: correct unit
- ★ 1 point: accurate measurement
- ★ Bonus point: correct order

Reflection

Which object was hardest to estimate? Why?

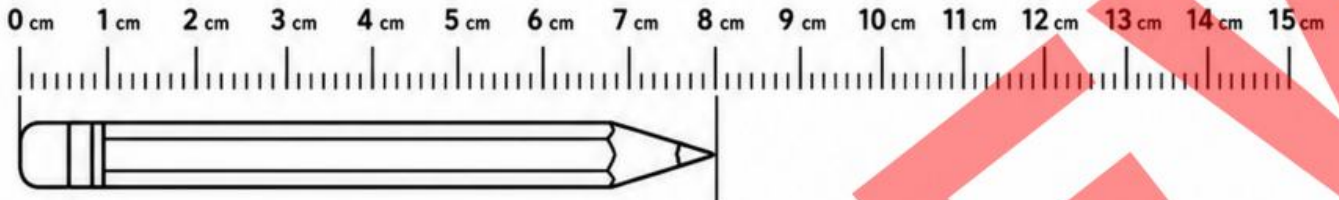
Centimetre Measuring: Read the Ruler



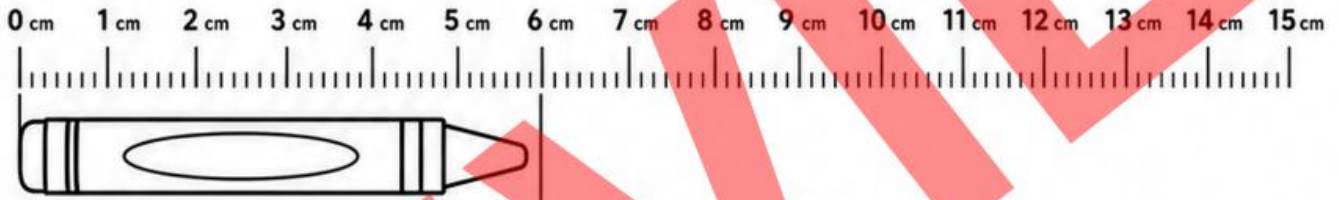
Name: _____

Measure each object from zero. Write the length in centimetres.

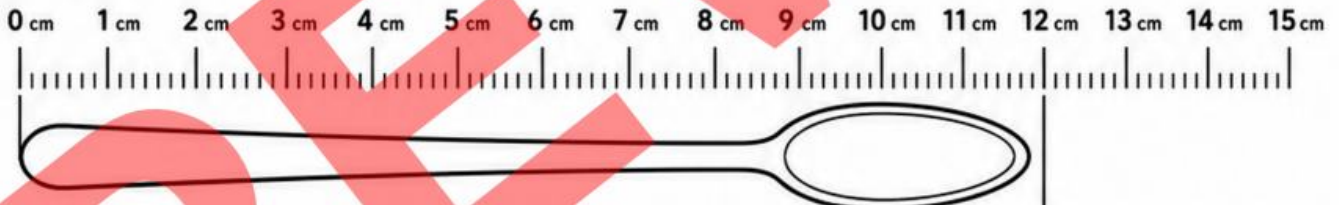
1. pencil



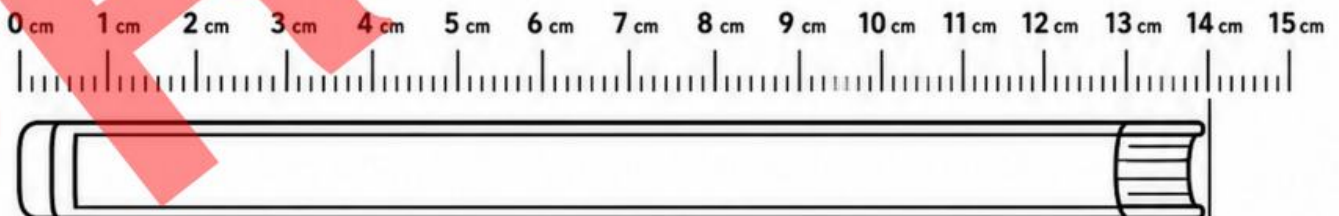
2. crayon



3. spoon



4. book



- The pencil measures _____ cm
- The crayon measures _____ cm
- The spoon measures _____ cm
- The book measures _____ cm

Check: I started at zero. ☐

I wrote cm. ☐

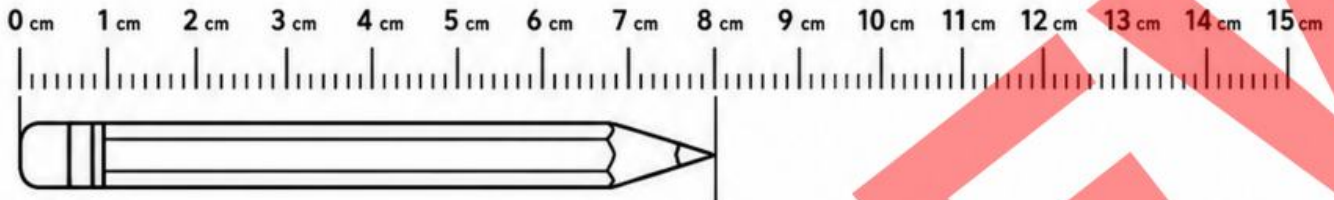
Centimetre Measuring: Read the Ruler



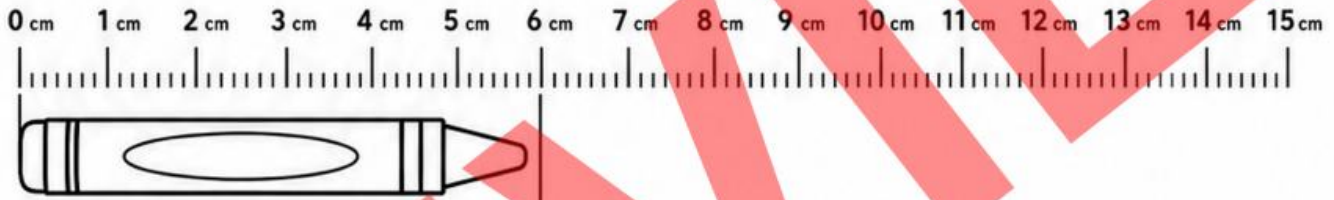
ANSWERS _____

Measure each object from zero. Write the length in centimetres.

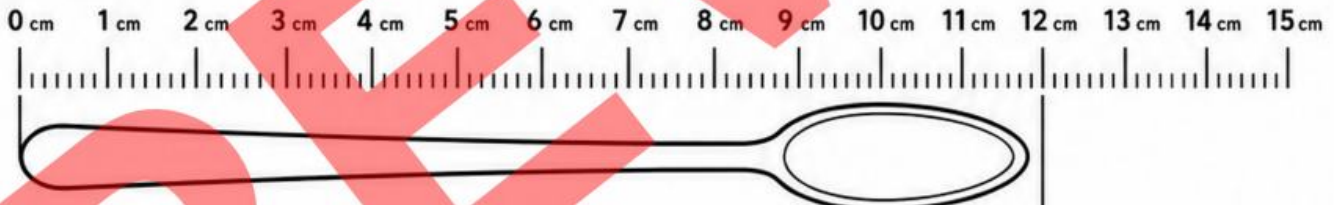
1. pencil



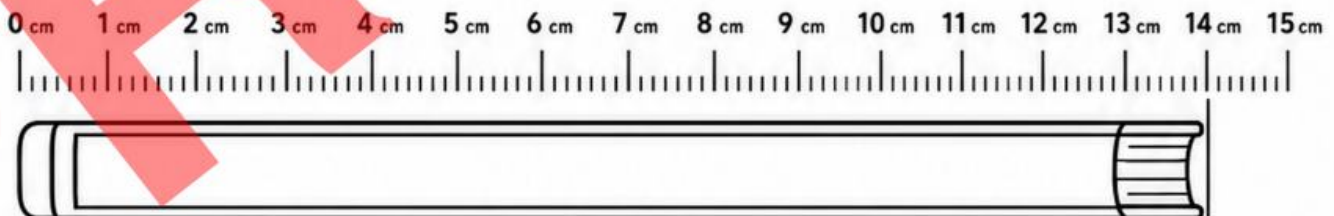
2. crayon



3. spoon



4. book



- The pencil measures 8 cm
- The crayon measures 6 cm
- The spoon measures 12 cm
- The book measures 14 cm

Check: I started at zero.



I wrote cm.



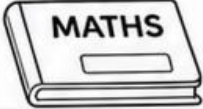
Centimetre Measuring: Classroom Objects



Name: _____

Use a ruler to measure each object. Record the measurement in centimetres.

Section A: Measure and Record

Object	Estimate	Actual Measurement	Is your estimate close?
pencil 	_____ cm	_____ cm	☐ Yes ☐ Almost ☐ No
glue stick 	_____ cm	_____ cm	☐ Yes ☐ Almost ☐ No
maths book 	_____ cm	_____ cm	☐ Yes ☐ Almost ☐ No
shoe 	_____ cm	_____ cm	☐ Yes ☐ Almost ☐ No
scissors 	_____ cm	_____ cm	☐ Yes ☐ Almost ☐ No
desk label 	_____ cm	_____ cm	☐ Yes ☐ Almost ☐ No

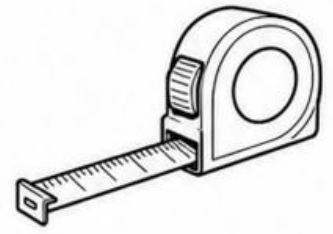
Section B: Compare Your Measurements

- Which object was longest? _____
- Which object was shortest? _____
- Which two objects were closest in length? _____

Section C: Measuring Check

- ☐ I started at zero.
- ☐ I kept the ruler straight.
- ☐ I wrote cm after each number.
- ☐ I checked my answer made sense.

Metre Measuring: Around the Room



Name: _____

Use metres for larger objects and longer spaces. Write each answer using m.

Section A: Read the Metre Clues

1. A classroom mat is 2 metres long. It measures _____ m
2. A whiteboard is 3 metres long. It measures _____ m
3. A hallway carpet is 5 metres long. It measures _____ m
4. A playground bench is 2 metres long. It measures _____ m

Section B: Measure Real Spaces

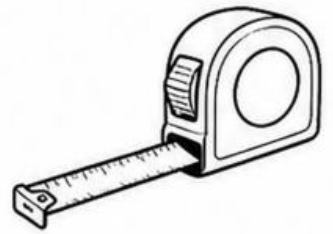
Space	Estimate	Actual Measurement
 classroom door	_____	_____ m
 reading carpet	_____	_____ m
 teacher desk	_____	_____ m
 wall	_____	_____ m
 group table	_____	_____ m

Section C: Compare

1. Which was longer: the door or the desk? _____
2. Which was shorter: the wall or the carpet? _____
3. Was one estimate very close? Explain. _____

A sensible metre measurement should match the size of the object or space.

Metre Measuring: Around the Room



ANSWERS _____

Use metres for larger objects and longer spaces. Write each answer using m.

Section A: Read the Metre Clues

1. A classroom mat is 2 metres long. It measures 2 m
2. A whiteboard is 3 metres long. It measures 3 m
3. A hallway carpet is 5 metres long. It measures 5 m
4. A playground bench is 2 metres long. It measures 2 m

Section B: Measure Real Spaces

Space	Estimate	Actual Measurement
 classroom door	_____	<u>about 2</u> m
 reading carpet	_____	<u>varies</u> m
 teacher desk	_____	<u>about 1</u> m
 wall	_____	<u>varies</u> m
 group table	_____	<u>about 2</u> m

Section C: Compare

1. Which was longer: the door or the desk? door
2. Which was shorter: the wall or the carpet? carpet
3. Was one estimate very close? Explain. answers vary

A sensible metre measurement should match the size of the object or space.

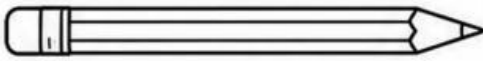
Choosing Centimetres or Metres

Name: _____

Choose the better unit for each object. Then explain your thinking.

Section A: Circle cm or m

1. pencil

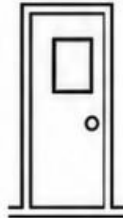


☐ cm

☐ m

Why? _____

2. classroom door



☐ cm

☐ m

Why? _____

3. book



☐ cm

☐ m

Why? _____

4. playground



☐ cm

☐ m

Why? _____

5. shoe



☐ cm

☐ m

Why? _____

6. school hallway



☐ cm

☐ m

Why? _____

Section B: Write the Best Unit

1. length of a desk = _____

2. length of a rubber = _____

3. length of a basketball court = _____

4. length of a ruler = _____

Section C: Explain

1. Why is cm better for measuring a book than m?

2. Why is m better for measuring a hallway than cm?

Choosing Centimetres or Metres

ANSWERS

Choose the better unit for each object. Then explain your thinking.

Section A: Circle cm or m

1. pencil



cm



m

Why? small object

2. classroom door



cm



m

Why? large object

3. book



cm



m

Why? small object

4. playground



cm



m

Why? large space

5. shoe



cm



m

Why? small object

6. school hallway



cm



m

Why? long space

Section B: Write the Best Unit

1. length of a desk = m
2. length of a rubber = cm
3. length of a basketball court = m
4. length of a ruler = cm

Section C: Explain

1. Why is cm better for measuring a book than m?

A book is small, so cm gives a sensible number.

2. Why is m better for measuring a hallway than cm?

A hallway is long, so m is easier to use.

Compare and Order Lengths

Name: _____

Compare the lengths. Then order each set from shortest to longest.

Section A: Circle the Correct Words

1. A pencil is 12 cm.

A book is 18 cm.

The pencil is:

longer than

shorter than

the same length as the book.

2. A desk is 2 m.

A door is 3 m.

The desk is:

longer than

shorter than

the same length as the door.

3. A ribbon is 25 cm.

A ruler is 30 cm.

The ribbon is:

longer than

shorter than

the same length as the ruler.

4. A mat is 4 m.

A wall display is 4 m.

The mat is:

longer than

shorter than

the same length as the wall display.

Section B: Order from Shortest to Longest

1. 8 cm, 15 cm, 10 cm, 20 cm

2. 3 m, 1 m, 5 m, 2 m

3. 24 cm, 9 cm, 16 cm, 12 cm

4. 6 m, 4 m, 8 m, 7 m

Section C: Explain Your Thinking

How did the units help you order the lengths?

Compare and Order Lengths

Name: ANSWERS

Compare the lengths. Then order each set from shortest to longest.

Section A: Circle the Correct Words

1. A pencil is 12 cm.

A book is 18 cm.

The pencil is:

longer than

shorter than

the same length as the book.

2. A desk is 2 m.

A door is 3 m.

The desk is:

longer than

shorter than

the same length as the door.

3. A ribbon is 25 cm.

A ruler is 30 cm.

The ribbon is:

longer than

shorter than

the same length as the ruler.

4. A mat is 4 m.

A wall display is 4 m.

The mat is:

longer than

shorter than

the same length as the wall display.

Section B: Order from Shortest to Longest

1. 8 cm, 15 cm, 10 cm, 20 cm

8 cm, 10 cm, 15 cm, 20 cm

2. 3 m, 1 m, 5 m, 2 m

1 m, 2 m, 3 m, 5 m

3. 24 cm, 9 cm, 16 cm, 12 cm

9 cm, 12 cm, 16 cm, 24 cm

4. 6 m, 4 m, 8 m, 7 m

4 m, 6 m, 7 m, 8 m

Section C: Explain Your Thinking

How did the units help you order the lengths?

I compared numbers with the same unit first.

Length Word Problems and Reasoning

Name: _____

Read each problem. Show your thinking and write the answer with the correct unit.

Section A: Solve

1. A rope is 3 m long.
Another rope is 2 m long.
How long are the two ropes altogether?

Working: _____

Answer: _____ m

2. A table is 2 m long.
A mat is 1 m long.
How much longer is the table?

Working: _____

Answer: _____ m

3. A ribbon is 40 cm long.
Ella cuts off 15 cm.
How long is the ribbon now?

Working: _____

Answer: _____ cm

4. A book is 18 cm long.
A pencil is 11 cm long.
How much shorter is the pencil than the book?

Working: _____

Answer: _____ cm

Section B: Choose and Explain

5. Would you measure a library shelf in cm or m? Why?

6. A student says a shoe is 2 m long. Is that reasonable? Explain.

Section C: Check My Answer

- ☐ I used the same unit.
- ☐ I wrote cm or m.
- ☐ My answer makes sense.

Length Word Problems and Reasoning

Name: **ANSWERS**

Read each problem. Show your thinking and write the answer with the correct unit.

Section A: Solve

1. A rope is 3 m long.
Another rope is 2 m long.
How long are the two ropes altogether?

Working: $3 + 2 = 5$

Answer: **5** m

2. A table is 2 m long.
A mat is 1 m long.
How much longer is the table?

Working: $2 - 1 = 1$

Answer: **1** m

3. A ribbon is 40 cm long.
Ella cuts off 15 cm.
How long is the ribbon now?

Working: $40 - 15 = 25$

Answer: **25** cm

4. A book is 18 cm long.
A pencil is 11 cm long.
How much shorter is the pencil than the book?

Working: $18 - 11 = 7$

Answer: **7** cm

Section B: Choose and Explain

5. Would you measure a library shelf in cm or m? Why?
m, because a shelf is a larger object.
6. A student says a shoe is 2 m long. Is that reasonable? Explain.
No. A shoe is usually measured in cm.

Section C: Check My Answer

- ☒ I used the same unit.
- ☒ I wrote cm or m.
- ☒ My answer makes sense.

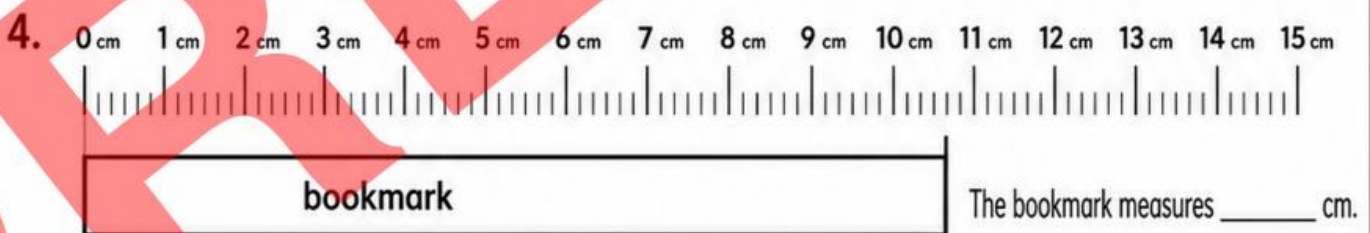
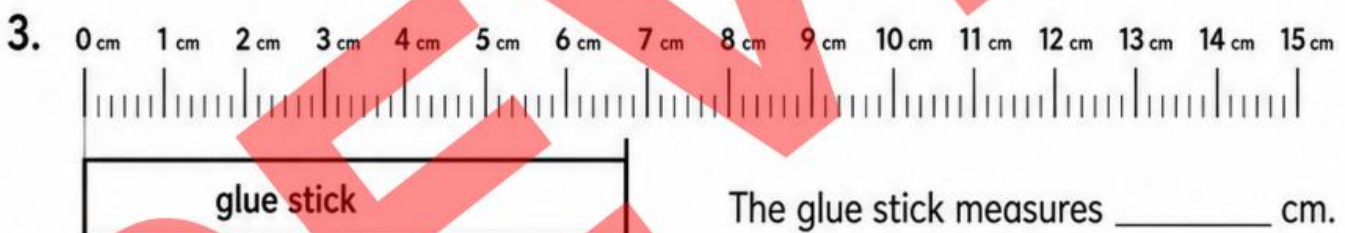
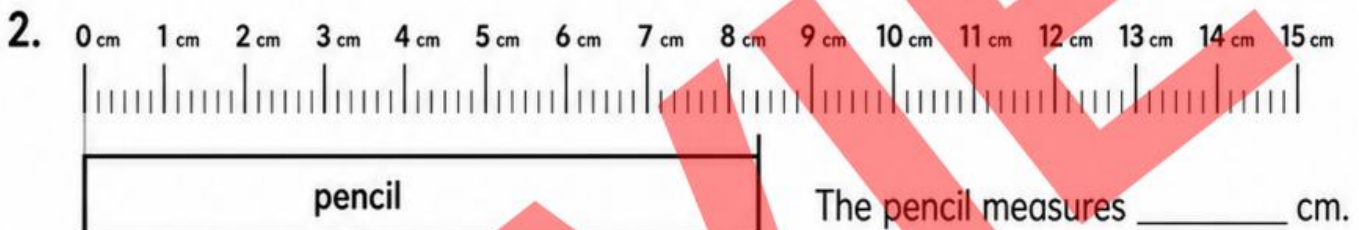
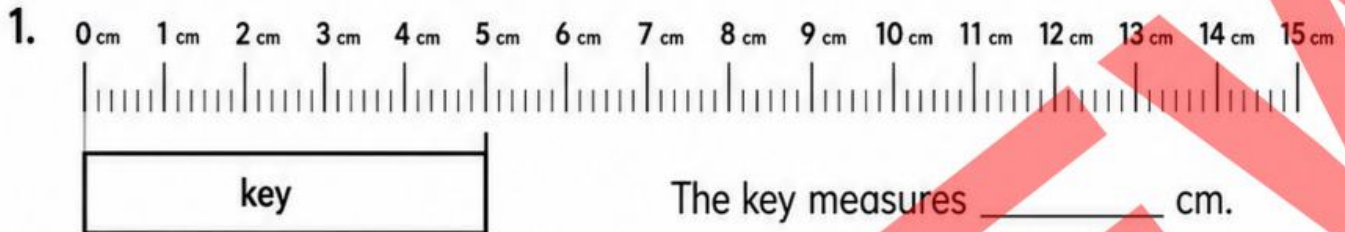
Assessment: Measuring and Comparing Length

Page 1

Name: _____

Show what you know about centimetres, metres and comparing lengths.

Section A: Measure in Centimetres



Section B: Choose the Best Unit

- length of a pencil ☐ cm ☐ m
- length of a classroom wall ☐ cm ☐ m
- length of a rubber ☐ cm ☐ m
- length of a playground path ☐ cm ☐ m

Section C: Record Correctly

Rewrite each measurement with the correct spacing and unit.

- 14cm = _____
- 3m = _____
- 20 centimetres = _____
- 2 metres = _____

Assessment: Measuring and Comparing Length

Page 2

Name: _____

Section D: Measure in Metres

Use a metre ruler or tape measure.

1. The classroom door measures _____ m.
2. The reading carpet measures _____ m.
3. The front board measures _____ m.
4. The group table measures _____ m.

Section E: Compare and Order

1. Circle the longer length: 14 cm or 19 cm
2. Circle the shorter length: 6 m or 4 m
3. Order from shortest to longest: 7 cm, 12 cm, 5 cm, 15 cm.
Order: _____
4. Order from shortest to longest: 3 m, 8 m, 1 m, 5 m.
Order: _____

Section F: Word Problem

A garden path is 6 m long.
A second path is 3 m long.
How much longer is the first path?

Working: _____

Answer: _____ m

Section G: Reflection

Why is it important to choose the correct unit when measuring?

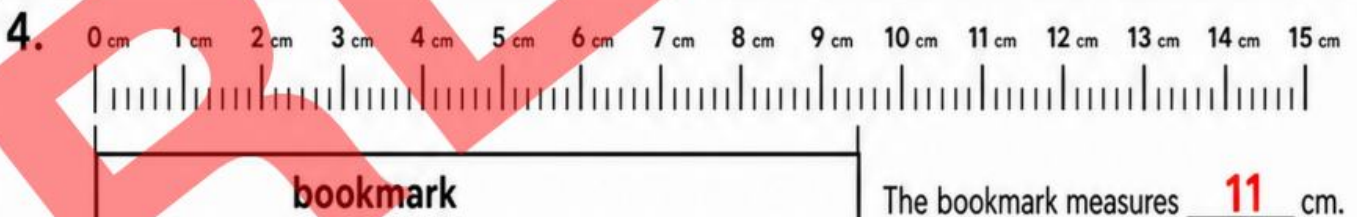
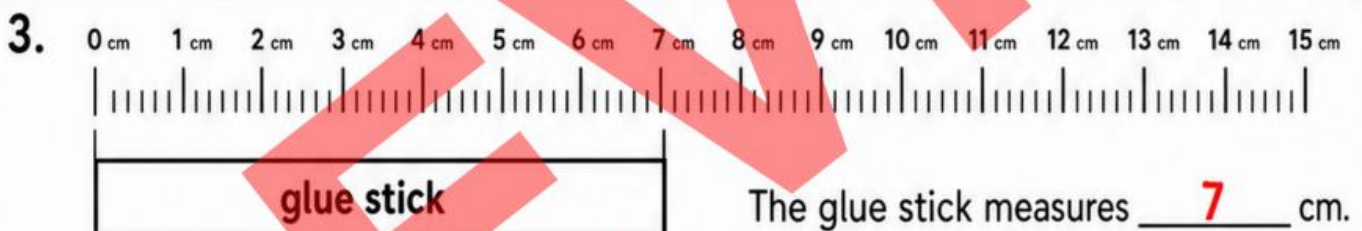
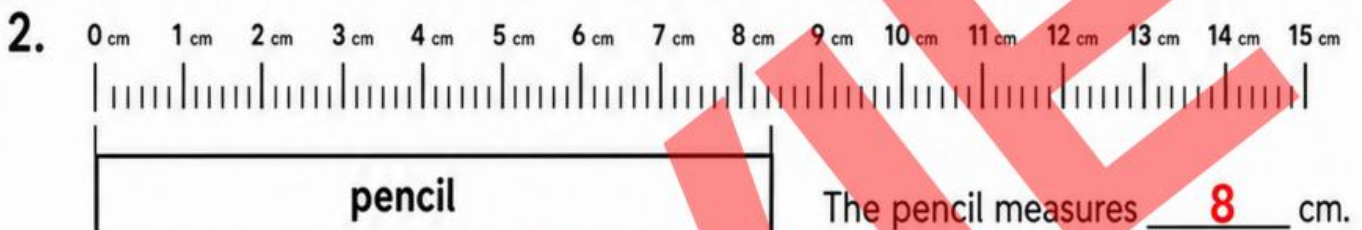
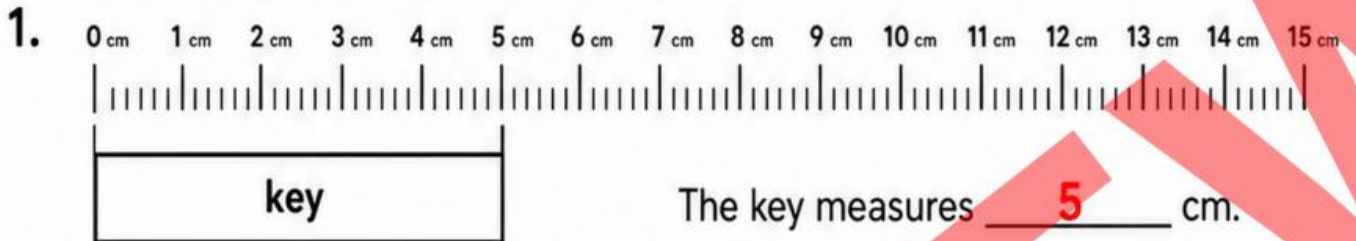
Assessment: Measuring and Comparing Length

Page 1

Name: **ANSWERS**

Show what you know about centimetres, metres and comparing lengths.

Section A: Measure in Centimetres



Section B: Choose the Best Unit

- length of a pencil ☒ cm ☐ m
- length of a classroom wall ☐ cm ☒ m
- length of a rubber ☒ cm ☐ m
- length of a playground path ☐ cm ☒ m

Section C: Record Correctly

Rewrite each measurement with the correct spacing and unit.

- 14cm = **14 cm**
- 3m = **3 m**
- 20 centimetres = **20 cm**
- 2 metres = **2 m**

Assessment: Measuring and Comparing Length

Name: **ANSWERS**

Page 2

Show what you know about centimetres, metres and comparing lengths.

Section D: Measure in Metres

Use a metre ruler or tape measure.

1. The classroom door measures **about 2** m
2. The reading carpet measures **varies** m
3. The front board measures **about 3** m
4. The group table measures **about 2** m

Section E: Compare and Order

1. Circle the longer length: 14 cm or **19 cm**
2. Circle the shorter length: 6 m or **4 m**
3. Order from shortest to longest: 7 cm, 12 cm, 5 cm, 15 cm.
Order: **5 cm, 7 cm, 12 cm, 15 cm**
4. Order from shortest to longest: 3 m, 8 m, 1 m, 5 m.
Order: **1 m, 3 m, 5 m, 8 m**

Section F: Word Problem

A garden path is 6 m long.
A second path is 3 m long.
How much longer is the first path?

Working: **$6 - 3 = 3$**

Answer: **3** m

Section G: Reflection

Why is it important to choose the correct unit when measuring?

It helps the measurement make sense and be accurate.

Year 3 Measurement: Length Rubric

Student Name: _____

Date: _____

Criteria	BEGINNING	DEVELOPING	ACHIEVING	CONFIDENT	EXCEEDING
1. Choosing Units	Needs help choosing cm or m.	Chooses a sensible unit sometimes.	Chooses cm or m for familiar objects.	Chooses units accurately and explains why.	Chooses units independently and justifies choices clearly.
2. Measuring Accurately	Often starts away from zero.	Measures with some alignment errors.	Measures familiar objects with reasonable accuracy.	Measures carefully using the correct tool.	Measures accurately and checks reasonableness.
3. Recording Length	Numbers or units are often missing.	Records some measurements correctly.	Records length with numbers and units.	Records clear measurements using cm and m.	Records, labels and explains measurements precisely.
4. Comparing and Solving	Needs support comparing lengths.	Compares simple lengths with prompts.	Compares, orders and solves simple problems.	Explains comparisons and solves word problems.	Solves multi-step length problems with clear reasoning.

Aligned to metric length measurement, estimating, comparing and reasoning skills.

Measurement: Length



What Is Length?

Length tells us how long or how tall something is.

We use length to compare objects, build things, check whether items fit, and describe size accurately.



Why Use Standard Units?

Body-part measurements can be different for different people.
Standard units help everyone get fair, accurate and shareable measurements.



Standard Units in Year 3

We measure length using centimetres and metres.

Centimetres are written as cm.

Metres are written as m.



What Is a Centimetre?

A centimetre is a small unit of length.

Use centimetres for pencils, crayons, books, shoes and other small classroom objects.



What Is a Metre?

A metre is much larger than a centimetre.

Use metres for classrooms, hallways, playgrounds, doors and longer distances.



Centimetres and Metres

100 centimetres = 1 metre.

Use cm for small lengths.

Use m for larger lengths.



Choosing the Correct Unit

Choose cm when the object is small.

Choose m when the object is large.

The correct unit helps the number make sense.



Tools for Measuring Length

Rulers measure centimetres.

Metre rulers and tape measures measure metres.

Match the tool to the size of the object.



Parts of a Ruler

A ruler has a zero starting point.
The even spaces show centimetres.
Each numbered mark shows 1 cm.



Measure from Zero

Line the object up at zero, not the edge.

Keep the ruler straight.

Read the number at the end of the object.



How to Measure Accurately

Line up the start point.

Keep the tool straight.

Avoid gaps.

Write the number and the unit.



Common Mistakes

Starting at 1 instead of zero.

Bending the ruler.

Leaving a gap.

Forgetting the unit.



Measuring in Metres

Use a metre ruler or tape measure.

Measure from one end to the other.

Record metre answers using m.



Recording Measurements

Correct: 12 cm, 3 m, 45 cm.

Incorrect: 12, 3, cm 45.

A measurement needs a number and a unit.



Comparing Lengths

After measuring, compare using longer than, shorter than, and the same length as.

Compare the numbers and units carefully.



Ordering Lengths

Measurements can be ordered from shortest to longest or longest to shortest.

Use the numbers and units to decide the order.



Length in Real Life

People use length to cut wood, build furniture, sew clothes, lay carpet and design buildings.



Length Word Problems

Length problems may ask you to add, subtract or compare measurements.

Read the units before solving.



This Week

Measure using cm and m.

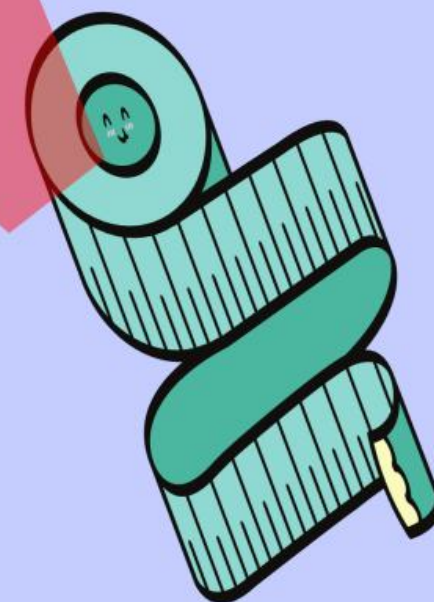
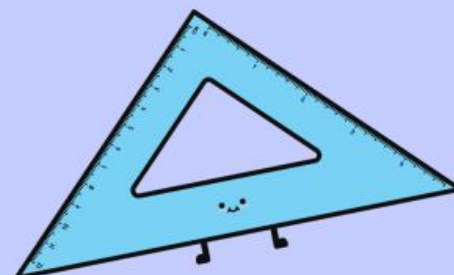
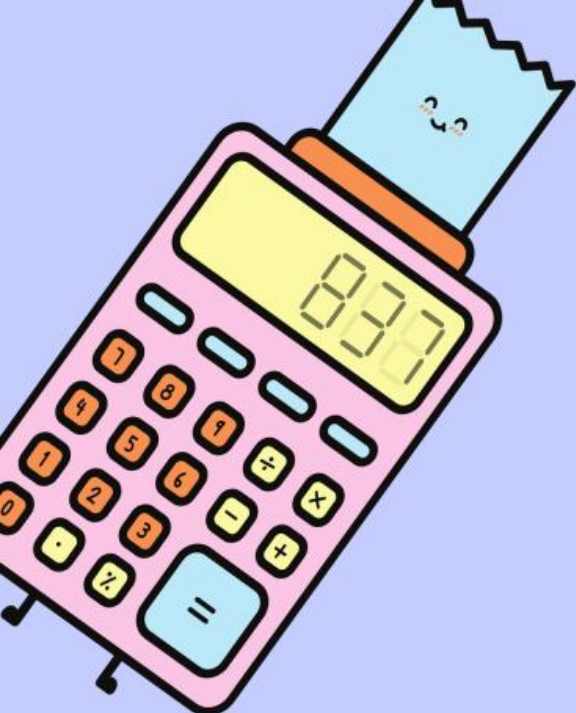
Choose sensible units.

Measure accurately.

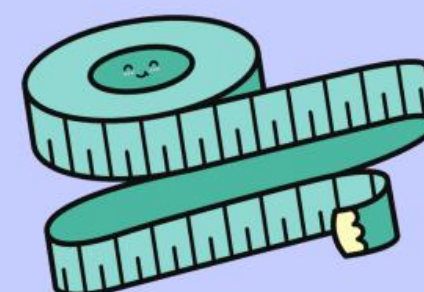
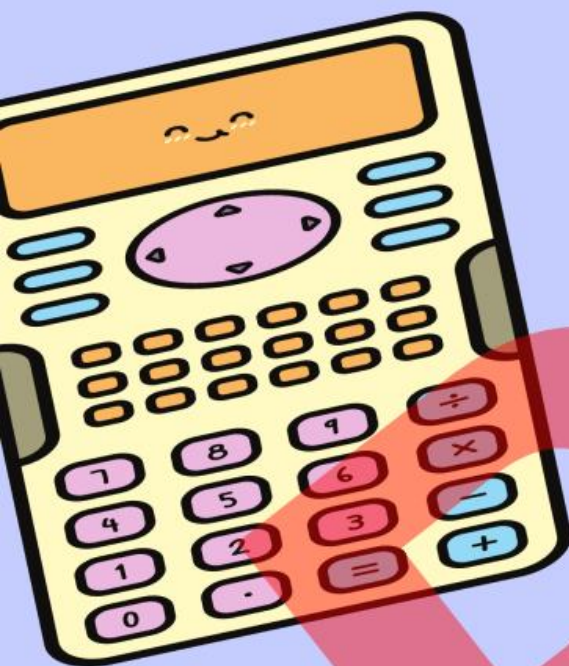
Record answers with units.

Compare, order and solve length problems.





Well Done!



Measurement: Length Quiz



Question 1

Which unit is best for measuring the length of a pencil?

A. m

B. cm

C. km

D. g



Answer 1

B. cm



Question 2

True or false?

100 centimetres is the same as 1 metre.



Answer 2

True.



Question 3

What is the correct unit to write after this measurement?

The classroom door is 2__.



Answer 3

m



Question 4

Which object would most likely measure about 4 metres?

- A. a book
- B. a desk
- C. a hallway
- D. a ruler



Answer 4

C. a hallway



Question 5

True or false?

You should start measuring from the edge of the ruler instead of zero.



Answer 5

False. Start at zero.



Question 6

Which measurement is written correctly?

A. 12

B. cm 12

C. 12cm

D. 12 m



Answer 6

D. 12 m



Question 7

Which unit would you use to measure the length of a shoe?

Write cm or m.



Answer 7

cm



Question 8

A rope is 3 m long. Another rope is 2 m long.

How long are the two ropes altogether?

A. 4 m

B. 5 m

C. 6 m

D. 7 m



Answer 8

B. 5 m



Question 9

True or false?

If one object measures 25 cm and another measures 30 cm, the 25 cm object is longer.



Answer

False. The 25 cm object is shorter.



Question 10

Why is it important to choose the correct unit when measuring?



Answer 10

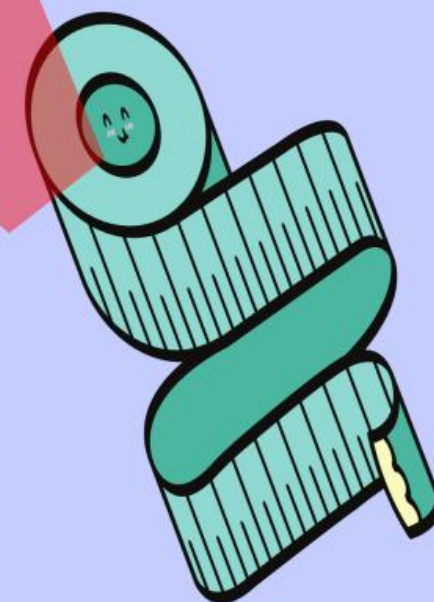
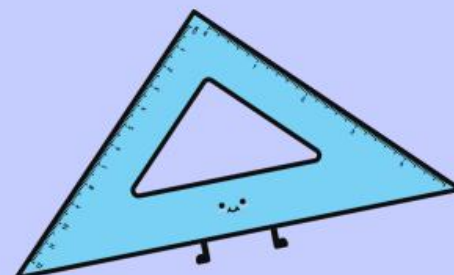
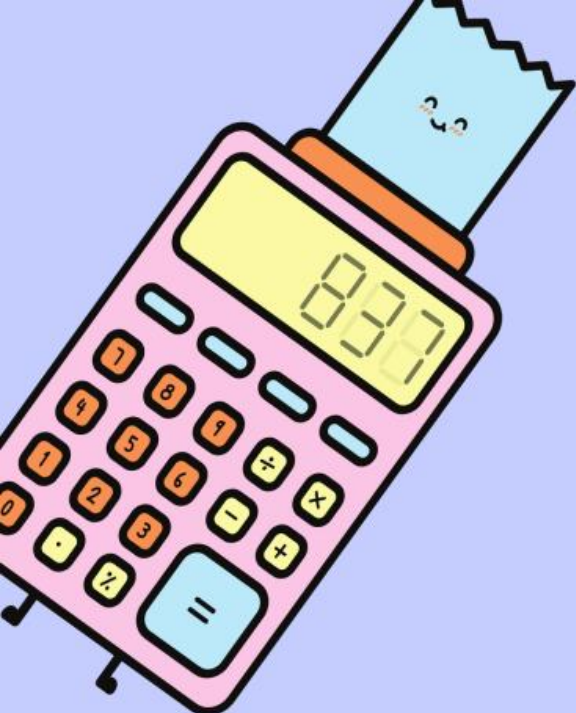
Any sensible answer, such as:

The number needs to make sense.

The measurement should be accurate and fair.

Different units give different numbers.





Great Work!

