



## Geometry &amp; Measurement Concepts - NCERT Chapter 4: Long and Short

Students will be able to select & use the appropriate units (cm & metre) to measure different lengths/heights

40- 50 min

PRE REQUISITES:

G3.68 Know how to add and subtract lengths in centimetres and metres

TLM



1 Metre scale

1 cm scale

↓ A long thread (about 2 metres)

MISCONCEPTIONS

None

KEY VOCABULARY

Kilometres

## PLAY



Choosing an appropriate scale for measurement

○ Show a cm & a metre scale. Ask one student to choose between cm & metre scale & measure the length of the duster

○ Call another student to choose the appropriate scale & measure the length of the wall

QUESTION

Why would you not want to use a cm ruler to measure the length of the wall?

○ Repeat the activity by calling other students one by one

○ Ask the students to pick a scale to measure other items in the classroom ( eg. a book, a desk, the blackboard etc.)

○ Ask students to list down three objects that should be measured using cm & 3 objects to be measured by metre scale

## PROCESS



A few metres

A few centimetres

Classify everyday objects based on the measurement unit suitable for them

○ Tell the students that centimetre & metre can be used as units to measure the lengths of different objects

○ However, a centimetre is more suitable to measure smaller objects & metre is more suitable for measuring bigger objects

○ Draw a table on the blackboard & classify everyday objects based on the unit is more appropriate to measure their length

○ Emphasize that using a cm ruler to measure longer objects like a door or a wall is not suitable

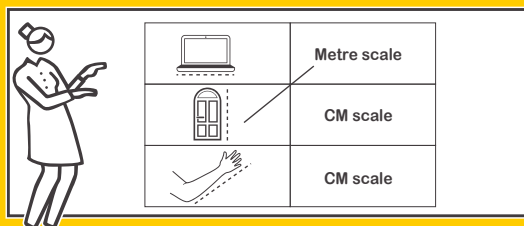
○ Its unsuitable because the cm ruler is much smaller in size. Tell that metre scales are too big to measure small objects

○ Explain metre scales are too big to measure small objects eg, eraser & too small for measuring big lengths like a road

○ Tell that distance between cities or lengths of rivers are measured in kms. 1 Km is bigger than 1m

QUESTION: Distance from your house to a nearby grocery shop should be measured in metres or cms?

## PRACTICE



Write the question on the blackboard & ask the students to solve it

○ Help the students solve question 3 from the worksheet. Draw the images of the given objects & ask the students to identify the more suitable unit for its measurement

○ Emphasize that length of an object does not depend on the ruler/scale used to measure it. The same length can be expressed in cms & also in metres

○ Help the students solve question 4 from the worksheet. Ask the students to think about how long each of the animals shown below can jump



Leap of a tiger



Jump of a dog



Step of a mouse

○ Encourage the students to make estimates like "less than a metre", "a few cms". etc



- ① SOLVED EXAMPLE : Look at the images & tell which unit should be used to measure how far they can go

| S.No. | Transport                                                                         | Cm | m | Km                                                                                  |
|-------|-----------------------------------------------------------------------------------|----|---|-------------------------------------------------------------------------------------|
| 1.    |  |    |   |  |
| 2.    |  |    |   |                                                                                     |
| 3.    |  |    |   |                                                                                     |
| 4.    |  |    |   |                                                                                     |

- ② Fill in the blanks with km, metre or cm:

My school is 2 \_\_\_\_\_ from home.  
(cm/ Kilometre)



Mona climbed a tree that was 8 \_\_\_\_\_ tall (metre/cm).

- ③ Match the objects to the unit that should be used to measure their length

|                                                                                      |             |
|--------------------------------------------------------------------------------------|-------------|
|   | Metre scale |
|   | Cm scale    |
|  | Cm scale    |

- ④ How long can each of the animals shown below jump

a.



Some metres or some centimeres

b.



Some metres or some centimeres

c.



Some metres or some centimeres

- ⑤ Draw an animal which is only a few cm long. Draw an animal which is a few meters long.



Make a paper airplane. Make a guess about how far it can go.  
Note it here: \_\_\_\_\_

Launch it three times & measure the distance it covers in every flight.  
Write down the farthest it can fly