



Measurement



Fatima was sitting at the shop along with her father on a holiday.
A farmer came to the shop.



- Farmer - I want a rope of 8 cubits length.
- Fatima - Uncle, take it. I have measured it by my hand.
- Farmer - Oh! This rope is not 8 cubits in length.
- Fatima - Why uncle ? I myself have measured it 8 cubits.
- Farmer - Daughter, your hands are small. That is why it is only 7 cubits in length by my hands.



Think –

- On measuring objects of the same length by two different people in steps, cubits, handspan, fingerwidth (angul), why do the measurement vary ?

Now, you also measure with your friend and write –

	My measurement	Friend's measurement
Length of the room (in cubit)		
Length of the room (in steps)		
Width of the Gintara (in fingerwidth)		
Length of the table (in handspan)		

Let us understand –

- Hand, handspan, fingers and steps of all the people are not equal. When the same distance is measured by many people, it becomes either more or less, these are not the standard units of measurement.

The game of tip-cat (Gilli Danda) –

Think and tell –

- In the tip-cat game, how do we measure the distance of the gilli ?.....
- The distance of the gilli remain same or different when is it measured by different players?.....
- Is a stick used to measure other places too? If yes, where?
- Now you measure the length of the room using stick. Also get it measured by your friend. Think, are both the measurements same?





Look at the pictures and tell –

- What is the tailor taking measurement with?
- What is the shopkeeper taking measurement with?

For correct measurement scale, measuring tape or rod are used. These are marked at equal distances. It is called metre – **scale**.

Let us make a rope of one metre-

- tie a knot at one end of the rope.
- touch the one end of the metre rod to the knot along the rope.
- make mark on the other end and tie another knot.
- the distance between two knots is 1 metre.

(if metre rod is not available, a measuring tape can be used)

If 100 marks are made on the rope at equal distance, the value of each section will be 1 centimetre (cm).

$$1 \text{ metre (m)} = 100 \text{ centimetre (cm)}$$

$$100 \text{ centimetre (cm)} = 1 \text{ metre (m)}$$

Understand and write –

$$3 \text{ m} = \dots\dots\dots \text{ cm}$$

$$9 \text{ m} = \dots\dots\dots \text{ cm}$$

$$400 \text{ cm} = \dots\dots\dots \text{ m}$$

$$700 \text{ cm} = \dots\dots\dots \text{ m}$$

Now, put the sign of tick (✓) in the table by measuring with the metre tape –

	More than 1 metre	Less than 1 metre
Length of the table		
Breadth of the table		
Breadth of the door		
Breadth of the window		

Let us measure our height –

- Stand against the wall and mark on the wall upto your height, measure it with the help of a meter scale.
- How will you measure the remaining length?
- We will measure it in centimetres.
- See, what is your length, is it more than 1 metre or less?



- Write by measuring with the ruler which you use in your school –
 - Length of the pencilcentimetre.
 - Breadth of the bookcentimetre.
 - Length of the erasercentimetre.
 - Length of the pencil boxcentimetre.



We have Learnt

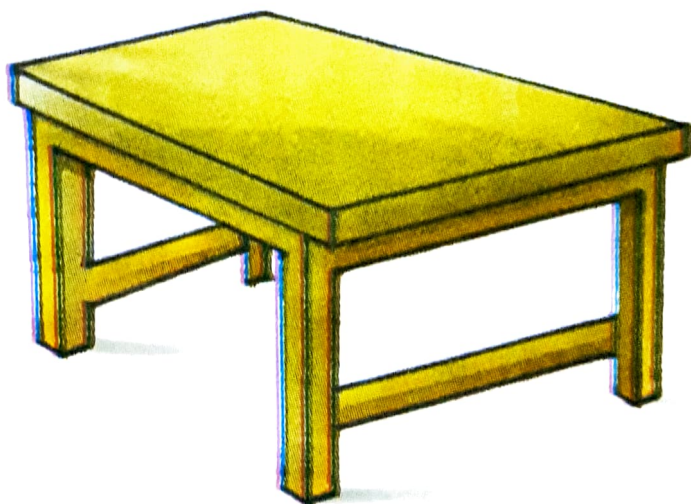
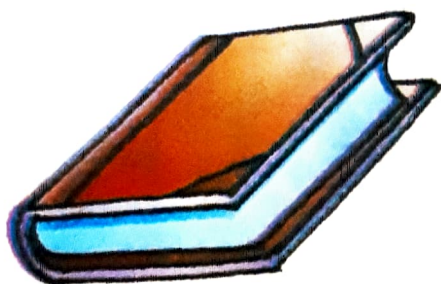


- Fingerwidth (angul), handspan, cubit, steps etc. are not the standard units of measurement.
- Metre is the standard unit of measuring length or distance.
- To measure length, centimetre is the smaller unit than metre. It is also written as cm.

Exercise –



1. Write after measuring –
Length of the school's corridor = steps.
Length of the school's table = handspan.
Length of the book = fingerwidth (angul)
breadth of the book = fingerwidth (angul)
2. Write after measuring – how many centimetre ?



Length of the bookcm.

Length of the table cm.

3. Guess and complete the following –
 - a. Length of the book = 15
 - b. Length of the room = 4
 - c. Length of the postcard =cm
 - d. Breadth of the table = 80

Develop the concept of standard measurement from non-standard measurement. After this make them do the exercise given in the workbook.