



Master Lesson Plan

For

Motion and Measurement of Distances

Board	Standard	Subject	Chapter	Language	Reference Link	Creation
CBSE	STD VI	Science	Motion and Measurement of Distances	English	Motion and Measurement of Distances	2020-10

DISCLAIMER

- * Strictly not for Commercial use.
- * Provided on 'as is' basis with no warranties of any kind.
- * Content that falls in Public Domain or common Knowledge facts can be used freely.
- * Some of the contents are owned by the Third parties and are used in compliance with their licensing conditions. Any one infringing the Copyright of such Third parties will be doing so at their own risks and costs.
- * Content can be downloaded and used for Personal, educational and informational purposes only. Any attempt to remove, alter, circumvent or distort the data that is accessed is Illegal and strictly prohibited.

Motion and Measurement of Distances

1. MS_Objectives_Motion and measurement of distances

Notes to the teacher: This asset lays down the proposed plan for transacting this chapter. It states the asset objectives of the MLP. This asset is for teacher's reference and need not be taught to the students:

Students will be able to...

- explore the different ways of transport from past to the present
- enumerate the gradual development of the transport
- discover both non-standard and standard measures of measurement
- describe the necessity of standard units of measurement
- explore the usage of standard and non-standard ways of measurement to sport
- an interest in the interesting facts about the measurement metre follow a
- correct position of eye for the proper measurement of length analyse how to
- measure the length correctly using a scale
- list the different types of measuring tools used in our daily life
- estimate the length of a curved line
- develop positive thinking through optimistic attitude in life explain
- the different types of motions
- identify the different types of motion in our daily life
- revise the different concepts of motion and measurement like parallax error, rectilinear motion etc

Time to teach	Asset Type	Theme	SubTheme
3 Minutes	Main Script	Motion	

2. IQ_How do we travel?

[Notes to the teacher - Teacher may enable the students to think and come out with as many answers as possible before giving out the right answer/ answers]

1. How did the kings and monarchs travel in the ancient times?

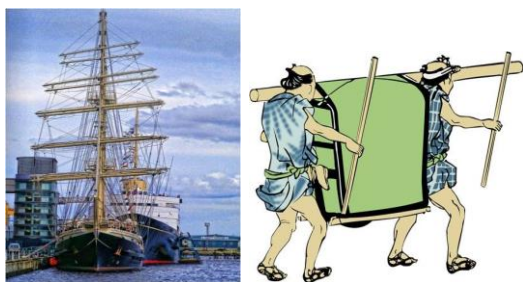
Possible Answer : The kings travelled in chariots, or they rode on elephants.



2. How did they move over land, river and sea?

Answer : They moved over land riding animals, chariots, palanquins .They used rowing boats or ships with sail

to move over water.



3. How did British come to India ?

Answer: The British came in ships.

4. How do we travel to different places today?

Answer: In cars, cycles, buses, trains, aeroplanes, ships and to space in rockets.



5. How many scooters, buses, cycles, trucks, cars and tonga, rickshaw, bullock carts etc. do you see while coming to school ?

Answer: We see more buses, cars ,scooters cycles etc. but very few carts and tonga.

6. How do you choose the type of transport you require for travelling from one place to another?

Answer: Transports enable movement of people and things at a fast pace from one place to another. Different types of vehicles move at different speeds. We can decide what transport we have to take up depending on the distance and time of travel.

Elephant-riding: <https://pxhere.com/en/photo/1109496>

Palanquin: <https://www.needpix.com/photo/100108/palanquin-man-persons-japanese-transport>

Ship: <https://pixnio.com/transportation-vehicles/ships-boats/watercraft-ship-boat-water-sail-cargo-ship-blue-sky-mast>

Ship2: <https://www.needpix.com/photo/1080518/ships-port-ship>

Car: <https://pixabay.com/photos/model-cars-toy-cars-autos-1899757/>

Train: <https://pixnio.com/transportation-vehicles/trains-and-buses/train-city-metro-railway-construction-bridge>

Rocket: http://www.publicdomainfiles.com/show_file.php?id=13533913823516

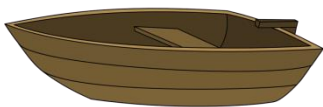
Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Inquisitive Questions	Motion	Story of transport, Story of transport

3. MS_Story of Transport

- In the very olden days, people used to move only on foot and carry the goods on their back. Later they began to use animals for transport.



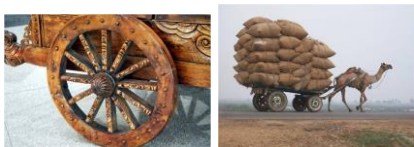
- In ancient times, boats were used for water transport.
- In the early days boats were built by making a hollow cavity in the wooden logs.



- Later people began to make boats in different shapes that resembled the shapes of aquatic animals.



- A great change in modes of transport was made by the invention of the wheel which has resulted in the development of animal driven carts.



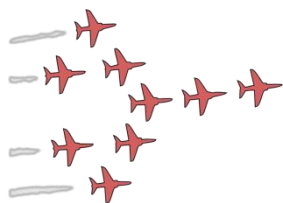
- Later a great change in the means of transport was made by the invention of steam engine.



- Later automobiles such as cars, buses, trucks for road transport and motorised boats and ships for water transport were developed.



- In the early years of 1900 aeroplanes were developed.



- In the 20th century, supersonics and space crafts were developed.



- Even today researches are being conducted for new modes of transport.

Image Sources:

Donkey-transport: <https://www.maxpixel.net/A-Donkey-Carrying-Luggage-Donkey-Donkey-With-Weight-4194781>

People: <https://www.needpix.com/photo/169468/travelers-carrying-people-silhouettes-walking-luggage-moving>

Wooden-boat: <https://www.needpix.com/photo/176992/boat-wood-rowing-simple-small-bench-rudder-nutshell>

Dragon-boat: <https://pixabay.com/vectors/dragon-boat-festival-china-cartoon-1445655/>

Wooden wheel: <https://www.publicdomainpictures.net/en/view-image.php?image=11997&picture=wooden-wheel>

Camel-cart: <https://www.needpix.com/photo/432840/camel-cart-logistics-transport-transportation-animal-nature-desert>

Steam-engine-train: <https://pixnio.com/transportation-vehicles/trains-and-buses/steam-locomotive-coal-steam-engine-locomotive-train-vehicle-iron>

Train: <https://www.flickr.com/photos/mtaphotos/37924343971 - CC BY 2.0 - Metropolitan Transportation Authority of the State of New York>

Aeroplane: <https://pixabay.com/vectors/airplanes-jets-formations-fighter-39979/>

Spacecraft: <https://www.maxpixel.net/Space-Probe-Jupiter-Spacecraft-Planet-Juno-1700974>

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Main Script	Motion	Story of transport, Story of tr

4. SA_Need for standard units of measurement

Aim: To explore the necessity of standard units of measurement

Resources Required: A chalk piece, a metre scale

Setting for the Activity: Indoor

Type of Activity: Demonstration/Experiment**Procedure:**

- 1) Divide students into 3 groups of 5 members in each group.
- 2) Assign 3 groups with following 3 tasks respectively.

Measure the length of the wall of the classroom with handspan, foot, cubit and the given scale.

Measure the length of the desk of the classroom with handspan, cubit and the given scale

Measure the length of the board with hand span, cubit and the given scale

- The distance between thumb and outstretched finger to the elbow is a cubit.
- The distance from the tip of the thumb to the tip of the little finger with the hand fully extended is Hand span.

Procedure for each group

1. Start measuring by keeping the elbow at one edge. Mark the point where the mid finger touches, with the chalk.
2. Again keep the elbow from that point and repeat.
3. Count the number of times it took to reach the other edge of the table.
4. Repeat the measurement with each one's foot, cubit, handspan and also with the scale as mentioned in their tasks.

Each one in the group has to repeat the measurement individually and note it down.

No.	Students	Length Of The Class			Metre Scale
		Foot Step	Hand Span	Cubits	
1.					
2.					
3					
4					
5					

No.	Students	Length Of The Desk		
		Metre scale	Hand Span	Cubits
1.				
2.				
3				
4				
5				

No.	Students	Length Of The Board		
		Metre scale	Hand Span	Cubits
1.				
2.				
3				
4				
5				

Observation: For the same length, different students got different lengths when they used body parts to measure. Measurements using body parts vary with individuals.

Conclusion:

The measurements using the scale were the same for all students. Hence for uniformity we need a standard unit of measurement.

Precautions:

After the first measurement, students should place their elbow or foot or scale tip exactly on the point marked, to continue the measurement.

Discussion Questions:

Q.1: Why do you think using body parts for measuring things will vary with individuals?

Answer: We use our hands or length of hand from fingers to elbow or our foot for finding out the length and breadth of an object. The size of the hand and foot may vary from person to person. It may be small, medium or large. Hence the measurement may not be correct. Hence they are non standard units of measurement.

Q.2 What are standard units of measurements?

Answer: Metre, Centimetre, Kilogram, Litre etc. are standard units of measurement.

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Suggested Activity	Measurements	Standard units of measurement units of measurement

5.MS_Measurement

- Comparison of an unknown quantity with a known quantity is called measurement. That known quantity is the unit of measurement.
- A measurement is expressed in two parts. One part is the number and the other part is the unit of measurement.
- Example: 3 litres of milk

Non-standard Measures of Measurement

Some of the non-standard measures used for measurement are length of a foot, cubit, handspan

1. One Cubit is a measure from the tip of the middle finger to the elbow.
2. One hand span is the measure from tip of the thumb to the tip of the little finger.
3. One foot is the measure from the end point of the heel to the tip of the big toe.

But these non-standard measures are not reliable as their length varies from one person to another person. Standard units of measurement have to be followed for accurate measurements.

Standard units of measurement

- The International System of units (SI) is the most commonly used system of measurement in the world.
- It is based on the MKS system (Metre-Kilogram-Second)
- In the SI system, the unit of length is metre, the unit of weight is kilogram and the unit of time is second.
- Symbol of metre is m.
- Each metre is divided into 100 equal divisions called centimetres(cm). Each centimetre is divided into 10 equal divisions called millimetres(mm).

$$1 \text{ m} = 100 \text{ cm}$$

$$1 \text{ cm} = 10 \text{ mm}$$

For measuring larger distances, we use a larger unit of length called kilometre(km).

$$1 \text{ km} = 1000 \text{ m}$$

Time to teach	Asset Type	Theme	SubTheme
8 Minutes	Main Script	Measurements	Standard units of measurement Standard Measuring, Standard measurement, Non Standard

6. IQ_How to measure?

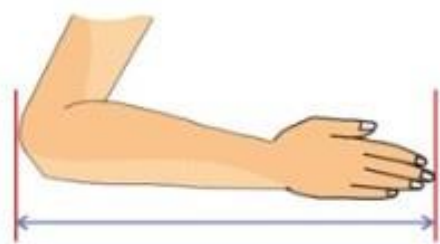
[Notes to the teacher - Teacher may enable the students to think and come out with as many answers as possible before giving out the right answer/ answers]

1. How will you know whether you have grown taller?

Answer: We mark the height on the wall and then we measure the height using a measuring tape. Based on our previous recorded height, we decide whether we have grown taller or not.

2. What does a woman selling flower garlands use to measure the string of flowers?

Answer: The flower selling woman always uses her arm's length (cubit) to measure the strung flowers.



Cubit

3. How do the milk vendors measure milk?

Answer: Milk vendors measure milk in litres using a litre can.

4. Sometimes we use instruments and sometimes we use hands, palms etc. for measurement. Which method is correct?

Answer: Most of the time, we make use of exact measurements but at times approximate measurements are thrust on us. For example, the woman selling flowers will always use her arm's length (cubit) to sell strung- flowers; a peanut vendor uses his hand to sell roasted peanuts!. Bhel-Poori & Chaatwala throw in handfuls of various ingredients which make the chaat so delicious!!



SSSVV Gallery
SSSVV Gallery

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Inquisitive Questions	Measurement of distances	Non-standard ways of measurement Accurate ways of measurement standard ways of measurement ways of measurement

7. IA_How Long is a Metre?

- Long ago Paris Academy of Sciences defined a metre as ten millionth ($1/10,000,000$) part of the distance from the equator to the North Pole along the meridian passing through Paris.
- International conference on Weight and Measures (1899) standardised the metre as the distance between two lines marked on a specially prepared metallic rod kept under a constant temperature at The International Bureau of Weights and Measures at Paris in France.
- A replica of this rod is used as standard of a metre elsewhere. National Physical Laboratory, Delhi maintains the standard of measurements in our country.

Time to teach	Asset Type	Theme	SubTheme
3 Minutes	Interesting Asides	Measurement of distances	Standard units of measurement units of measurement

8. SA_Activity for the proper measurement of length

Aim: To know a correct position of eye for the proper measurement of length.

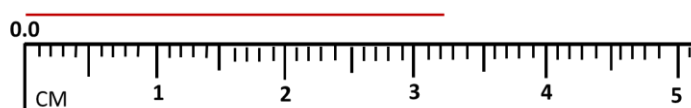
Resources Required (for each student): Science textbook, a pencil and a metre scale.

Setting for the Activity: Indoor

Type of Activity: Demonstration/Experiment

Procedure:

1. Take the metre scale. Note down the value of one division of the scale.
2. Check whether the edges are worn out.
3. Keep the text book on the horizontal surface of the desk.
4. Place the scale in contact with the book along its length.
5. Then make sure that the first end of the book coincides with a mark on the scale.



6. Note down the reading. Let it be 'a'.
7. Note the reading on the other end of the book on the scale. Let it be 'b'. Then length of the book is $b-a$.
8. Repeat the experiment keeping the first end of the book at a different reading(For example 2 cm).
9. Note the reading at the other edge of the book (Let it be 22 cm). Then length of the book = $22-2 = 20$ cm.
10. Find the average of the length calculated.

Reading when the scale is kept in contact with the book.

Initial Reading on the scale (Reading at the first edge of the book) a cm	Final Reading on the scale (Reading on the other edge) b cm	Length of the book (b-a)cm

6. Now repeat the experiment with 3 students taking reading from 3 different positions.

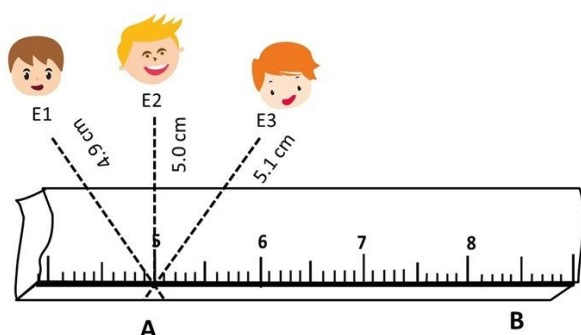
Each student of the group should stand in different positions.

First student should stand in a way that his eye is positioned vertically above the mark of the scale which has to be noted and the second student should stand towards the left of the mark which has to be noted.

The third student should stand similarly to the right of the mark.

Each member should take the reading from his position.

Name of the student	Initial Reading on the scale (Reading at the first edge of the book) a cm	Final Reading on the scale (Reading on the other edge) b cm	Length of the book (b-a)cm
E1			
E2			
E3			



Observation : Each student's reading is found to be different .When compared with the other groups , the middle student's length of each group is found to be same.

Conclusion: The correct position of the eye to take a reading is vertically above the mark. Otherwise error occurs.

Discussion Questions:

1. Define parallax error.

Answer: Parallax error is the error that occurs in the measurement of length due to the improper positioning of eye.

Question-2: How can we avoid parallax error?

Answer: The eye has to be on the appropriate marking of the reading and not viewed from the sides.

Image Sources:

Tables: OC:pavani.sathyasai@gmail.com

Scales-ray diagram: Original contribution – rushmish@gmail.com children:

<https://pixabay.com/illustrations/boy-discussions-talk-kids-clipart-2782835/>

children2: <https://pixabay.com/illustrations/boy-kids-colorful-clipart-2758836/>

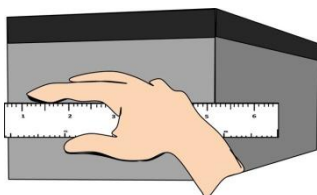
children3: <https://pixabay.com/illustrations/kids-clipart-cute-design-teacher-2782670/>

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Suggested Activity	Measurement of distances	Accurate ways of measurement ways of measurement

9. MS_Correct measurement of length

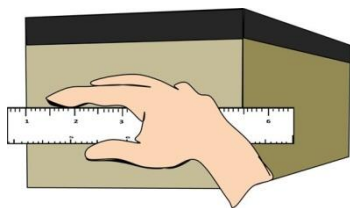
Steps for the correct measurement of length using a scale

1. Place the scale in contact with the object to be measured along its length.



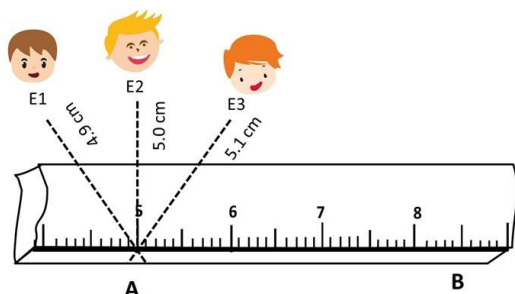
2. Generally the zero mark of the scale is taken as the starting point for measurement. Some scales have broken ends. In such case, use the following other mark of the scale which is 1.0 as the starting point for measurements. Then get the actual reading by subtracting the reading of this mark from the reading at the other end of the scale.

For example if 1.0 cm is the starting point for measurement and reading at the other end of scale is 13 cm, the actual reading is $13 - 1 = 12$ cm.



3. Position the eyes exactly just above the point where the measurement is to be taken. Incorrect positioning results in parallax error (incorrect reading of measurement.)

Parallax error is the error that is caused in the measurement due to the improper positioning of the eye.



Images Source:

Original contribution – rushmish@gmail.com

<https://pixabay.com/illustrations/boy-discussions-talk-kids-clipart-2782835/>

children 2: <https://pixabay.com/illustrations/boy-kids-colorful-clipart-2758836/>

children 3: <https://pixabay.com/illustrations/kids-clipart-cute-design-teacher-2782670/>

Time to teach	Asset Type	Theme	SubTheme
6 Minutes	Main Script	Measurements	Accurate ways of measurement ways of measurement

10. DD_Measuring tools

Measuring tools used in our daily life are

1. **Metre Scale:** It is used to measure the length of an object. Length of a book can be measured by using a metre scale.



2. **Measuring jar:** It is used to measure the volume of a liquid. Shop keepers use litre can to measure kerosene, oil, milk etc.



3. **Balance:** It is used to measure the mass of an object. Balances are used to weigh different things like vegetables, fruits, different grocery items, jewellery etc.



4. **Stop clock:** It is used to measure the small durations of time. In competitions and quizzes, stop watch is used for the accurate measurement of time.



5. **Measuring tape:** It is used to measure the length of the distance. Measuring tape is used to measure the length of the room and also used by tailors to measure the length of the cloth.



Image Sources

Metre scale: SA: <https://pixabay.com/photos/meterstab-tool-scale-pencil-meter-1981751/>

Litre-can: <https://pixabay.com/photos/budget-krug-measuring-cup-429308/>

Balance: <https://pixabay.com/illustrations/graphics-design-3d-balance-sheet-875115/>

Vegetable market: <https://pixabay.com/photos/india-market-vegetables-fruit-322/>

Stopclock: <https://pixabay.com/photos/time-stopwatch-clock-hour-minute-731110/>

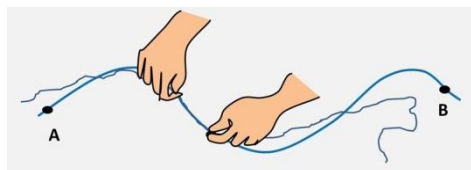
Measuring-tape: <https://pixabay.com/vectors/tape-measure-tool-measure-meter-145397/>

Cloth-tape: <https://pixabay.com/photos/tailor-thread-a-pair-of-scissors-554334/>

Time to teach	Asset Type	Theme	SubTheme
4 Minutes	Day-to-day Relevance	Measurements	Measuring Tool, Measuring

11. MS_Measuring the length of a curved line

We cannot measure the length of a curved line using a metre scale. We use a thread to measure the length of a curved line.



Steps for measuring the length of a curved line AB

1. Take a thread and tie a knot at one of its ends.
2. Place this knot on the point A.
3. Place the small portion of the thread along some portion of the line and keep it intact using your finger and thumb.
4. Now stretch a little part of the thread and place that stretched part of thread along the curved line
5. Repeat this process till you reach end B[other end] of the curved line. Tie a knot on the thread where it touches end B.
6. Now measure the length between 2 knots of the thread to get the length of the curved line.

Image Source: Original contribution – rushmish@gmail.com

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Main Script	Measurement of distances	Measuring the length of a curve

12. VC_The optimist and the pessimist

Learning Domain- Classroom

Introduction

The correct positioning of the eye is very important to get an accurate and correct measurement. Similarly it is very important to have the right attitude and way of looking at things or analysing situations in day to day life.

Group Activity

Introduction

The class will do a group activity to explain the concept of measurement. The teacher will use a glass half filled with water and have an interactive session with the students on what the students think when they see the glass of water.

Group Activity

Procedure:

1. Teacher will show a glass half filled with water to the students.
2. The teacher will query on what students think when they see the glass of water.
3. Students could have two answers along the following lines- the glass is half full or the glass is half empty.
4. The class will then discuss and analyse the answers given by the students.
5. The answer "Glass is half full" indicates that the student is an optimist who sees everything in a positive manner.
6. The answer "Glass is half empty" indicates that the student is a pessimist who sees everything in a negative manner.
7. However the teacher has to explain that the same thing can be understood differently, all depends on one's way of looking at things and that the best way is to look at them positively.

Optimism and Pessimism- A short story

A family had twin boys whose only resemblance to each other was their looks. If one felt it was too hot, the other thought it was too cold. If one said the TV was too loud, the other claimed the volume needed to be turned up. Opposite in every way, one was an eternal optimist, the other a doom & gloom pessimist.

Just to see what would happen, on the twins' birthday their father loaded the pessimist's room with every imaginable toy and game. The optimist's room he loaded with horse manure.

That night the father passed by the pessimist's room and found him sitting amidst his new gifts crying bitterly. "Why are you crying?" the father asked.

"Because my friends will be jealous, I'll have to read all these instructions before I can do anything with these toys and games, I'll constantly need batteries, and my toys will eventually get broken," answered the pessimist twin.

Passing the optimist twin's room, the father found him dancing for joy in the pile of manure. "What are you so happy about?" he asked.

To which his optimist twin replied, “There’s got to be a pony in here somewhere!”

Note to the teacher

The short story has to be narrated to the students after the concept of optimism and pessimism is explained through the activity, so that the concept is made clear to them.

Time to teach	Value Type	Value Sub Type	Value Attribute
10 Minutes	Truth		Group Activities

13. DD_Different types of motion in our daily life

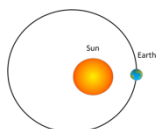
1. March past of soldiers in a parade and a freely falling fruit from a tree are examples for rectilinear motion.



2. Movement of drawer of a table is an example for rectilinear motion.



3. The movement of earth around the sun is an example for circular motion. Similarly all the planets move around the sun in circular motion



4. When the strings of a guitar are struck, they move to and fro from their mean position. This is an example for periodic motion.
5. Rotation of a wind mill and the motion of potter's wheel are examples for rotational motion.



6. The motion of the wheel of a running car about its own axis is an example for rotational motion.

Image Sources:

1. soldiers: <https://pixabay.com/vectors/army-gun-march-marching-phalanx-2026986/>
2. Tree: <https://pixabay.com/vectors/tree-apple-falling-fruit-leaves-159716/>
3. earth-movement: Original contribution – rushmish@gmail.com
4. Table: <https://pixabay.com/photos/chest-of-drawers-drawer-retro-2000127/>
5. Wind-mill: <https://www.maxpixel.net/Windmill-Energy-Power-Wind-Turbine-Environmental-4386613>
6. Potters-wheel: <https://www.maxpixel.net/Ceramics-Clay-Wheel-Throwing-Potters-Wheel-Pottery-3873236>

Time to teach	Asset Type	Theme	SubTheme
4 Minutes	Day-to-day Relevance	Motion	Rectilinear motion , Periodic motion, Rectilinear motion , Circular motion

14. MS_Types of motion

The following are the different types of motions:

1. Rectilinear motion
2. Circular motion
3. Rotational motion
4. Periodic motion

1. Rectilinear motion: When an object moves along a straight line, it is said to be in rectilinear motion.

Example: A car moving on a straight road, a freely falling fruit from a tree

2. Circular motion:

When an object moves in a circular path, it is said to be in circular motion

In circular motion, distance of the object from a fixed point remains same throughout the motion.

Example: Movement of hands of a clock, motion of blades of a fan.

3. Rotational motion:

It is a type of circular motion in which an object moves without changing its position on its own axis.

Example: Spinning of a top, rotation of earth on its axis

4. Periodic motion:

The repeated to and from motion of an object from a fixed point is called as periodic motion.

Example: Motion of pendulum of a clock, motion of a child on a swing.

Combination of two or more types of motions

In some situations, an object undergoes combination of two or more types of motions.

Example:

1. Wheels of a running car move forward straight on the road and also at the same time, they move in circles. So, wheels of any moving vehicle display both rectilinear motion and circular motion.
2. Motion of a ball along the ground: When we roll a ball on the ground, it rotates as well as moves forward along the ground in a straight line.

Here ball undergoes both rotational motion and rectilinear motion.

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Main Script	Motion	Rectilinear motion, Periodic Oscillatory motion, Circular Rectilinear motion, Periodic Oscillatory motion, Circular

15. QA_Questions on motion and measurement

I. Choose the correct answer

1. The invention of _____ resulted in the development of animal driven carts.
a) Boat b) Wheel c) Roads d) None
2. Each metre is divided into 100 equal divisions called _____.
a) Centimetres b) Millimetres c) Kilometres d) none
3. Non –standard measures used for measurement of length are _____.
a) Hand span b) Cubit c) both d) none
4. _____ is a type of circular motion in which an object moves without changing its position on its own axis.
a) Rectilinear b) Circular c) Rotational d) None

Answers: 1. b 2. a 3. c d. c

II. Fill up the following blanks

1. In SI system, the unit of length is_____.
2. Comparison of an unknown quantity with a known quantity is called as_____.
3. When an object moves along a straight line, it is said to be in_____.
4. 20 cm = _____mm
5. 200 cm = _____m
6. 4000 m = _____km
7. 5000 mm = _____m

Answers:

1. Metre 2. Measurement 3. Rectilinear motion 4. 200 5. 2m 6. 4km 7. 5m

III. Answer the following questions**1. What is Motion?**

Answer: Motion means change in the position of an object with time.

2. What is Rest?

Answer: Objects that do not change their position with time are said to be at rest.

3. Give examples of objects on motion and rest.

Answer: An athlete running on the ground is said to be in motion and an audience sitting in the stadium are said to be at rest.

The walls of a school are said to be at rest whereas the teachers and students moving about are in a state of motion.

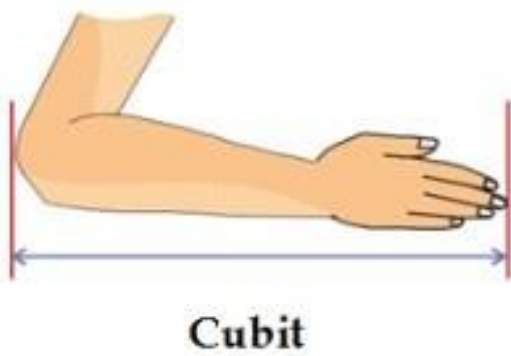
**4. What types of motions are observed while drawing water from a well?**

Answer: While drawing water from a well, the pulley on which the rope is put, exhibits circular motion and the bucket dropping into well exhibits linear motion.

5. Why should we not rely on non standard measures like cubit, for the measurement of length?

Answer: The length of non-standard measures like cubit, hand span etc. vary from one person to another person.

So, we should not rely on non-standard measures for accurate measurements



6. Explain in brief the steps for measuring the length of a curved line.

Answer:

Steps for measuring the length of a curved line AB

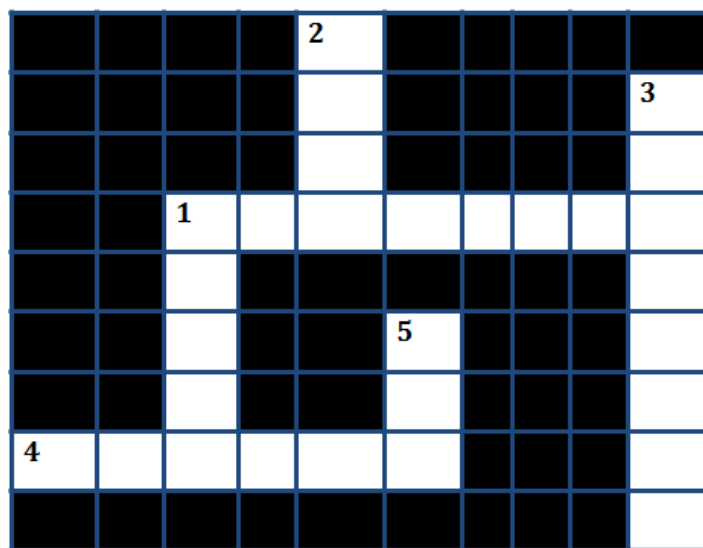
1. Take a thread and tie a knot at one of its ends.
2. Place this knot on the point A.
3. Place the small portion of the thread along some portion of the line and keep it intact using our finger and thumb.
4. Now stretch a little part of the thread and place that stretched part of thread along the curved line
5. Repeat this process till you reach end B[other end] of the curved line. Put a knot on the thread where it touches end B.
6. Now measure the length between 2 knots of the thread to get the length of the curved line

IV. Match the following

<u>Group A</u>	<u>Group B</u>
1. Length from tip of the thumb to the tip of the little finger.	a. Rotational motion
2. March past of soldiers	b. Hand span
3. Motion of a child on the swing	c. Rectilinear motion
4. Spinning of top	d. Periodic motion
5. Length from end point of heel to the tip of the big toe	e. Foot

Answers: 1. b 2. c 3. d 4. a 5. e

V. Solve the following puzzle



Down

1. Length of the arm from tip of the middle finger to the elbow.(5)
2. Objects that do not change their position with time are said to be at ____ (in reverse order)(4).
3. ____ error occurs due to the improper positioning of the eye.(8)
5. One centimetre is equal to ____ decimetres(3).

Across

1. All planets revolve around sun in ____ motion(7).
4. An athlete running on the ground is said to be in ____ (6).

Solution

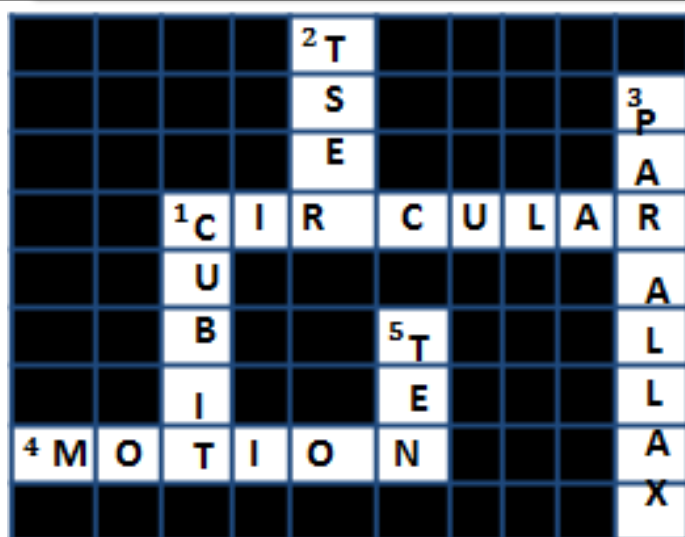
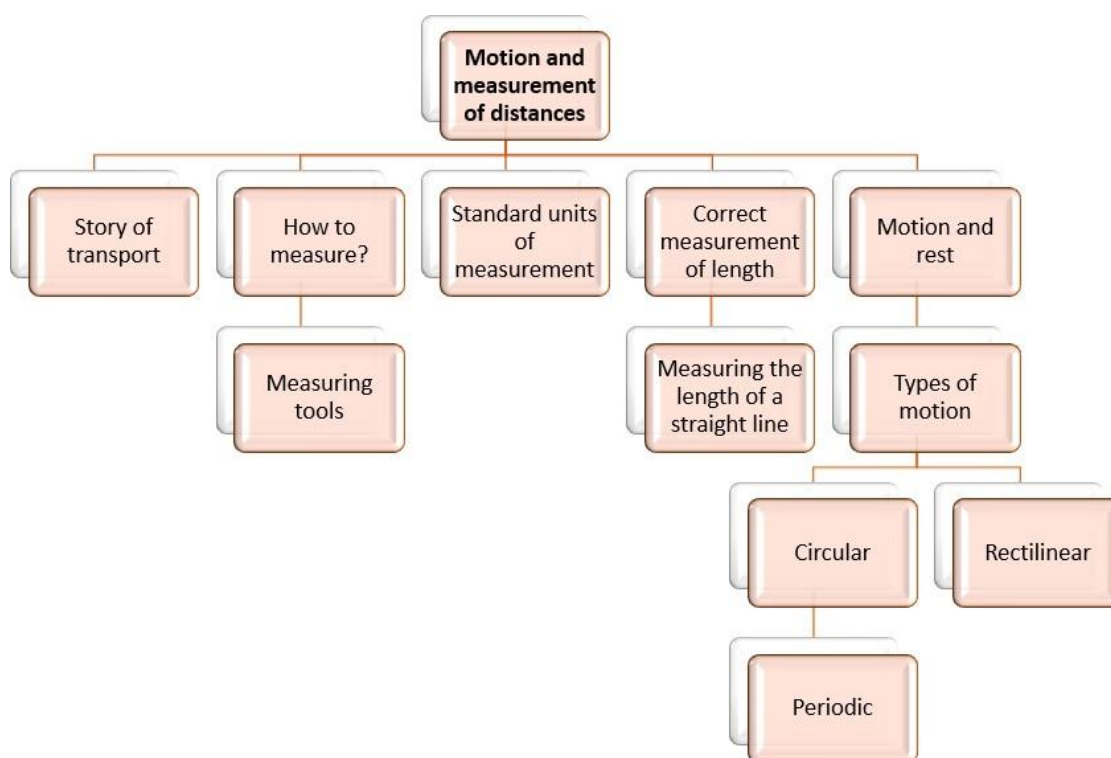


Image Source:

[https://en.wikipedia.org/wiki/File:Naisten_400_m_aidat_\(crop\).jpg](https://en.wikipedia.org/wiki/File:Naisten_400_m_aidat_(crop).jpg)
SSSVV Gallery

Time to teach	Asset Type	Theme	SubTheme
20 Minutes	Assessments	Measurement of distances	Standard ways of measurement units of measurement, Non-measurement, Measuring the curve, Standard ways of measurement units of measurement standard ways of measurement the length of a curve

16. MS_Summary_Motion and measurement of distances



Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Main Script	Measurement of distances	