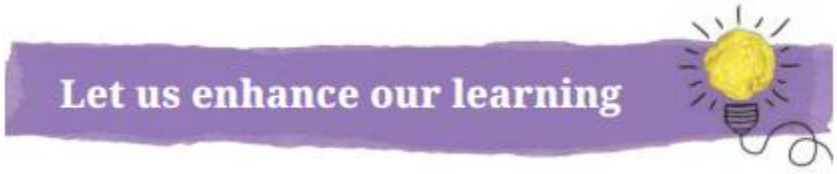
INDIAN SCHOOL AL WADI AL KABIR		
CLASS: VI	**DEPARTMENT: SCIENCE** **2026 - 2027**	**DATE: 11/11/2026**
TEXTBOOK Q & A	**TOPIC: MEASUREMENT OF LENGTH AND MOTION**	**NOTE: A4 FILE FORMAT**
CLASS & SEC:	**NAME OF THE STUDENT:**	**ROLL NO.**



1. Some lengths are given in Column I of Table 5.5. Some units are given in Column II. Match the lengths with the units suitable for measuring those lengths.

Column I	Column II
Distance between Delhi and Lucknow	Centimetre
Thickness of a coin	Kilometre
Length of an eraser	Metre
Length of the school ground	Millimetre

[Hint:

Column I	Column II
Distance between Delhi and Lucknow	**Kilometre**
Thickness of a coin	**Millimetre**
Length of an eraser	**Centimetre**
Length of school ground	**Metre**

2. Read the following statements and mark True (T) or False (F) against each.
(i) The motion of a car moving on a straight road is an example of linear motion. **[T]**
(ii) Any object which is changing its position with respect to a reference point over time is said

to be in motion. **[T]**

(iii) 1 km = 100 cm **[F]**

3. Which of the following is not a standard unit of measuring length?
(i) millimetre (ii) centimetre (iii) kilometre (iv) handspan

[Hint: (iv) handspan]

4. Search for the different scales or measuring tapes at your home and school. Find out the smallest value that can be measured using each of these scales. Record your observations in a tabular form.

Hint:

LOCATION	DIFFERENT SCALES	SMALLEST MEASUREMENT
School	Ruler (Plastic/steel/wooden)	1 mm (0.1 cm)
School/Ground	Long Measuring Tape (construction)	1 mm (0.1 cm)
Home	Ruler (Plastic/steel/wooden)	1 mm (0.1 cm)
Home	Measuring Tape (Tailor's tape)	1 mm (0.1 cm)

5. Suppose the distance between your school and home is 1.5 km. Express it in metres.

[Hint: Solution: 1 km = 1000 m.
1.5 km = 1.5 x 1000
= 1500 m]

6. Take a tumbler or a bottle. Measure the length of the curved part of the base of the glass or bottle and record it.

[Hint: We can measure the curved part of the base of a glass or bottle using a flexible measuring tape or thread, and record the measurement in millimetres or centimetres, as per the tape.]

7. Measure the height of your friend and express it in (i) metres (ii) centimetres and (iii) millimetres.

[Hint: (i) The height of my friend is recorded as 1.65 metres.
(ii) As we know, 1 m = 100 cm;
Therefore, 1.65 m = 1.65 × 100 = 165 cm (height in cm);
(iii) Also, we know that 1 cm = 10 mm;
Therefore, 165 cm = 165 x 10 = 1650 mm (height in mm).]

8. You are given a coin. Estimate how many coins are required to be placed one after the other lengthwise, without leaving any gap between them, to cover the whole length of the chosen side of a notebook. Verify your estimate by measuring the same side of the notebook and the size of the coin using a 15-cm scale.

[Hint: Estimation

The length of one side of the notebook appears to be about **24 cm**.
The diameter of one coin is approximately **2.5 cm**.

Estimated number of coins required

$$\frac{24}{2.5} = 10\ coins$$

So, **about 10 coins** are estimated to cover the length of the notebook.

Verification: (Measurement using a 15-cm scale)

- Length of the notebook side = **28 cm**
- Diameter of the coin = **2.4 cm**

Actual number of coins required

$$\frac{28}{2.4} = 11\ coins$$

The estimated number of coins (10 coins) is almost the same as the actual number obtained by verification (11 coins).
This shows that estimation gives a fairly accurate idea before exact measurement.**]**

9. Give two examples each for linear, circular and oscillatory motion.
[Hint: Linear motion- a car moving on a straight road, a stone falling straight down from a height**.**
Circular motion – Blades of a ceiling fan, a merry-go-round in a park.
Oscillatory motion – Pendulum of a clock, a swing moving to and fro.]

10. Observe different objects around you. It is easier to express the lengths of some objects in mm, some in cm and some in m. Make a list of three objects in each category and enter them in Table 5.6.

TABLE 5.6 Sizes of objects around us.	
SIZE	OBJECTS
Mm	
Cm	
M	

[Hint:

Size	Objects
mm	**Thickness of a coin, nail, needle, pin.**
cm	**Length of a pencil, length & breadth of an eraser, width of a notebook.**
m	**Height of a door, height of a person, length of a car, height of a tree, length of a classroom.**

11. A rollercoaster track is made in the shape shown in Fig. 5.19. A ball starts from point A and escapes through point F. Identify the types of motion of the ball on the rollercoaster and corresponding portions of the track.

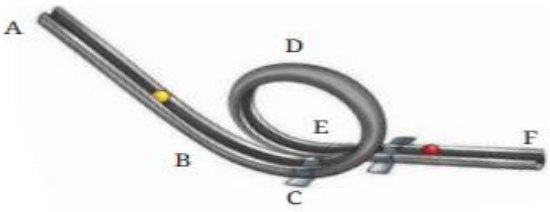


Fig. 5.19: Rollercoaster track

[Hint: From A to B, linear motion
From C to E: circular motion
From E to F: linear motion.]

12. Tasneem wants to make a metre scale by herself. She considers the following materials for it—plywood, paper, cloth, stretchable rubber and steel. Which of these should she not use and why?

[Hint: Tasneem should not use paper, stretchable rubber and cloth to make a metre scale. Reason: These materials are flexible or stretchable, so they cannot give accurate measurements. A metre scale must be made of a rigid material that does not change its length, such as wood (plywood) or steel, to ensure precise measurement.]

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