# NCERT Solutions Class 6 Science (Curiosity)

# Chapter 5 Measurement of Length and Motion

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

| Column I | Column II |
|---|---|
| Distance between Delhi and Lucknow | centimetre |
| Thickness of a coin | kilometre |
| Length of an eraser | metre |
| Length of school ground | millimetre |

**Answer:**

| 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 |

**Question 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. [ ]**
**(ii) Any object which is changing its position with respect to a reference point with time is said to be in motion. [ ]**
**(iii) 1 km = 100 cm [ ]**

**Answer:** (i) True (T)
(ii) True (T)
(iii) False (F)

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

**Answer:** (iv) handspan

**Question 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.**

**Answer:** Hint: Do it yourself with the help of parents and teacher.

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

**Answer:** Given that the distance between your school and home is 1.5 km, we know that 1 km = 1000 m
we can convert this to metres by multiplying:
1. 5 km × 1000 m/km = 1500 m
So, the distance between your school and home is 1500 metres.

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

**Answer:** Measure the curved part of the base by using a flexible measuring tape or a thread. Place the tape or thread around the base and note the measurement.

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

**Answer:** If the height of your friend is 1.45 metres.
(i) Metres = 1.45 m
(ii) Centimetres = 145 cm
(iii) Millimetres = 1450 mm

**Question 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.**

**Answer:** Let us estimate, if the side of the notebook is 30 cm and the coin diameter is 2 cm, you need approximately 15 coins. For verification, measure the actual length of the side of the notebook and the diameter of one coin. Divide the length of the notebook by the diameter of the coin to find the exact number of the coin needed.

**Question 9. Give two examples each for linear, circular and oscillatory motion.**

**Answer:**

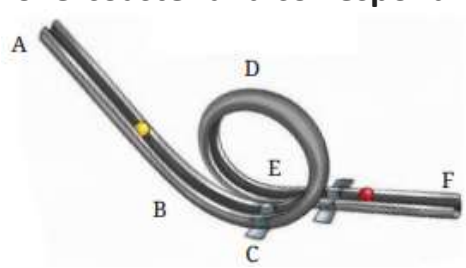
- Linear motion: A car is moving in a straight road and an apple dropping from the tree.
- Circular motion: Merry-go- round and spinning top.
- Oscillatory motion: Swinging on a swing and Pendulunj clock.

**Question 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 the Table 5.6.**
**Sizes of objects around us**

| Size | Objects |
|---|---|
| mm | |
| cm | |
| m | |

**Answer:** Hint: Do it yourself with help of friends and family.

**Question 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.**



**Rollercoaster tracks**

**Answer:** From A to B: Linear motion From B to C: Circular motion From C to D: Circular motion From D to E: Circular motion From E to F : Linear motion

**Question 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?**

**Answer:** She should not use stretchable rubber because it can give inaccurate measurements.

**Question 13. Think, design and develop a card game on conversion of units of length to play with your friends.**

**Answer:**Hint: Do it yourself with the help of your friends.