

CLASS 6

SCIENCE

EXTRA QUESTIONS

Class 6 Science Chapter 5 Measurement of Length and Motion Extra Questions

Extra practice questions for Class 6 Science Chapter 5, "Measurement of Length and Motion", to reinforce measurement units, correct technique, and motion classification beyond the textbook's own exercises.

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Extra practice questions for **Class 6 Science Chapter 5, “Measurement of Length and Motion”**, to reinforce measurement units, correct technique, and motion classification beyond the textbook’s own exercises.

Very Short Answer Questions

Q1. What is the SI unit of length?

Answer: Metre (m).

Q2. How many centimetres make one metre?

Answer: 100 centimetres.

Q3. What is a reference point?

Answer: A fixed point used to judge whether an object’s position is changing over time.

Q4. Give one example of oscillatory motion.

Answer: A swing moving back and forth (a pendulum is also acceptable).

Q5. What error occurs when the eye is not positioned directly above the scale reading?

Answer: Parallax error.

Short Answer Questions

Q6. Why were body-part units like the handspan replaced by standard units?

Answer: Body-part units vary from person to person (different people have different hand sizes), so the same object could be measured differently by different people. Standard units are fixed and give the same result no matter who measures.

Q7. How should you measure an object’s length if your scale’s zero mark is broken?

Answer: Start measuring from any other clear, undamaged full mark on the scale (such as the 1 cm mark), note the reading at both ends of the object, and subtract the starting reading from the ending reading to find the correct length.

Q8. Classify the following as linear, circular, or oscillatory motion: (a) a swing (b) a car on a straight highway (c) a spinning top.

Answer: (a) Oscillatory. (b) Linear. (c) Circular.

Q9. Convert 2500 mm into metres.

Answer: $2500 \text{ mm} \div 1000 = 2.5 \text{ m}$ (since $1 \text{ m} = 1000 \text{ mm}$).

Q10. Why is a flexible thread used to measure a curved object instead of a rigid ruler directly?

Answer: A rigid ruler can only measure straight-line distances, so it cannot follow a curved path accurately. A flexible thread can be shaped along the curve and then straightened out to be measured against a rigid ruler, giving an accurate curved-length measurement.

Long Answer / Reasoning Questions

Q11. Explain, with reasoning, whether Earth’s motion around the Sun and Earth’s motion on its own axis would both be classified the same way in this chapter’s motion framework.

Answer: Yes — at this chapter’s level, motion is classified only into linear, circular, and oscillatory. Since Earth’s spin on its axis and its path around the Sun are both curved (not straight-line) motions, this chapter would classify **both** as circular motion, even though advanced physics later distinguishes them as “rotation” (spinning in place) and “revolution”/orbital motion (moving around another body).

Q12. A student says, “Since I am sitting still in my chair, I am definitely at rest.” Explain why this statement needs a reference point to be meaningful.

Answer: Motion and rest are always relative to a chosen reference point. The student may be at rest relative to the classroom walls and furniture, but relative to the Sun, the student (along with the entire Earth) is actually moving very fast through space. Without specifying a reference point, a claim of being “at rest” is incomplete.

Q13. Design a simple method to measure the length of a winding garden path using only a ball of string and a metre scale.

Answer: Lay the string along the entire winding path, carefully following every curve and turn, and mark (or cut) the string at the point where the path ends. Then take the string, lay it out straight, and measure its total length using the metre scale — this gives the actual length of the winding path.

Q14. Explain why 1 kilometre equals 1,00,000 centimetres, showing the conversion steps.

Answer: 1 km = 1000 m (by definition). Since 1 m = 100 cm, we multiply: $1000 \text{ m} \times 100 \text{ cm/m} = \mathbf{1,00,000 \text{ cm}}$.

Q15. A Ferris wheel (giant wheel) carries passengers around in a loop, while each passenger cabin also gently sways slightly during the ride. Identify and explain the two different types of motion happening at once.

Answer: The Ferris wheel’s overall movement, carrying passengers around the large loop, is **circular motion**. The gentle swaying of each cabin back and forth is a separate, smaller **oscillatory motion** happening at the same time — showing that an object can undergo more than one type of motion simultaneously.

Practice more: [Solutions](#) | [Revision Notes](#) for this chapter.