

Measuring Length Correctly

Chapter 5: Measurement of Length and Motion · Topic 2

Key Concept

To avoid parallax error, always look straight down at the measurement mark, with your eye level directly above the scale — not from an angle. When measuring curved or irregular objects, a flexible measuring tape works better than a rigid ruler, since it can bend along the curve. For very small measurements, more precise instruments like a vernier caliper are used instead of an ordinary ruler, as they can measure to a fraction of a millimetre.

Quick Revision Notes

- Align the ruler's zero mark exactly with the starting point of the object.
- Parallax error occurs when the eye is not directly above the scale reading.
- Flexible measuring tapes are better for curved or irregular objects.
- Vernier calipers are used for very precise, small measurements.

Practice Questions

- 1 Measure the length of your book correctly using a ruler, avoiding parallax error.
- 2 Explain why a measuring tape is better than a ruler for measuring the circumference of a bottle.
- 3 Describe the correct way to position your eye when reading a scale.