

LIVING SCIENCE CLASS6 SOLUTION CHAPTER 11. MEASUREMENT AND MOTION

P. 123 Oral Questions For Formative Assessment

1. speed of a car, distance from earth to sun 2. No. 3. metre, kilogram, second
4. a. 10 kg b. 5 cm c. 1 kg d. 20 cm

P. 126 Oral Questions For Formative Assessment

1. Yes. A person inside a moving car can be in motion with respect to a building on the roadside but will be at rest with respect to the car itself.
2. Both A and B because both rectilinear and curvilinear are kinds of translatory motion.
3. Because, the outer portions of the top move through a greater distance than the inner portions. This type of motion is called rotational motion.
4. The revolution of earth is a translatory motion and the rotation of earth is a rotational motion. Another example is bicycle wheel having both rotational motion and translatory motion while moving.

P. 127 For Formative and Summative Assessment

- A. 1. b 2. c 3. c 4. b 5. c 6. b 7. c 8. b 9. d 10. a
- B. 1. physical 2. true 3. true 4. 1960 5. true 6. false
7. translatory motion 8. rotational motion 9. oscillatory motion 10. fast periodic motion
11. wheels of a car
- C. 1. Standard units are used in measurement because they remain same everywhere and does not change. This makes measurement easier,
2. CGS system (centimetre, gram, second) SI system (metre, kilogram, second)
3. To make accurate measurements we must use appropriate measuring instruments and also know how to use these instruments properly.
4. An object is said to be in motion if its position changes with time, in relation to a stationary object in its surroundings.
5. The invention of the wheel and the invention of the steam engine brought about revolutions in transport.
6. Rotational and translatory motion.
- D. 1. Because calculations with very large or very small numbers become very difficult and, therefore, impractical.

2. (i) Keep the ruler exactly along the length to be measured. (ii) Avoid using worn out portions of the instrument. (iii) Keep the eye vertically above the point where the measurement is to be taken.
3. Two methods we can use to measure the length of a curved line are: by using a thread, by using a divider: see diagrams
4. a. Accurate measurement is necessary while conducting an experiment in the laboratory, b. Only estimation is required while cooking in the kitchen. Because in a experiment, a slight mistake can lead to wrong result but in cooking a curry. a minor error in measurement will make no difference to its taste
5. Translatory motion is of two kinds.
 - (i) Linear or rectilinear motion - when the object moves in a straight line. for example, a car running on a straight road, a bullet fired from a gun.
 - (ii) Circular or curvilinear motion - when the object moves along a curved path, for example, a cyclist going along a circular track.
6. If the same motion occurs again and again, it is said to be repetitive motion. Repetitive motion that repeats itself at regular intervals of time is called periodic motion. For example, pendulum of a clock and revolution of the earth around the sun.

HOTS Questions

- 1 No, we do not measure everything accurately in our daily lives. We estimate a number of things, for example, how much sugar to put in a cup of tea, or how long to boil an egg.
2. Rotational and translatory motion
3. Two kinds of rotational motion with different axis of rotation.
4. Rotational and translatory motion.
5. Yes, with respect to all other heavenly bodies in the universe except the earth.