

Chapter 2

Motion

LESSON PLAN

SPECIFIC OBJECTIVES

Students will learn about

- ❖ rest and motion
- ❖ rest and motion are relative terms
- ❖ types of motion
- ❖ uniform and nonuniform motion
- ❖ distance or path length
- ❖ speed of a moving object
- ❖ weight of an object and its measurement

Teaching Aids

Pictures/charts/models/animation of few objects used in daily life whether they are in rest or motion; important formulae used in solving the numerical problems related to distance, speed and weight of an object.

Teaching Strategy

- ❖ The teacher should ask the students to study the definition of rest and motion and their related few examples. He/She also should ask them to study why rest and motion are called relative terms.
- ❖ Students should be asked to study types of motion, i.e., translatory, rotatory, oscillatory, periodic and nonperiodic, with their examples and illustrations. They should be asked to learn question-answer related to circular and curvilinear motion given at page 28 and something more related to rotatory motion given at page 29.
- ❖ The teacher should ask the students to learn something more and question-answer related to vibratory motion given at page 30. He/She should also ask the students to prepare a list of moving object with the help of activity 1 given at page 31. He/She should also ask the students to solve check point 1 given at page 32.

- ❖ Students should be encouraged to study uniform and nonuniform motion. They should be asked to study distance or path length with illustration given at page 33. They should also be asked to study speed of a moving object in detail and also something more and question-answer given at page 34.
- ❖ The teacher should ask the students to study how to calculate speed and average speed. He/She should also ask the students to practice numerical examples related to it given at pages 35–36. He/She should also ask the students to study weight of an object; differences between mass and weight using Table 2.1 given at page 36.
- ❖ Students should be encouraged to study question-answer related to vector quantity given at page 36 and something more related to gravity given at page 37. They should also be encouraged to study measurement of weight given at page 37.
- ❖ The teacher should ask the students to solve check point 2 given at page 37.
- ❖ Students should be encouraged to recap the chapter with the help of wrapping it up and know these terms. They should also be asked to answer the questions given in test yourself and discuss the think zone present in it.

Boost UP

- ❖ The teacher should write four to five examples related to position of objects on the blackboard. He/She should ask each student of the class to say the position of objects whether they are in rest or in motion.
- ❖ The teacher should write few examples of different motions on the blackboard and ask them to identify their kinds. He/She should also ask the students to tell the difference between uniform and nonuniform motion with examples.
- ❖ The teacher should arise few questions to the students related to distance or path length. He/She should also ask the students to find the distance travelled by boys of the particular two places.
- ❖ The teacher should ask the students to solve few numerical questions related to distance.
- ❖ The teacher should ask the students to tell the formula of speed and average speed. He/She should also ask the students to solve the numerical problems related to them.
- ❖ The teacher should ask the students to define weight of an object; to tell the differences between mass and weight, and also to tell the measuring instruments used to measure weight.

Expected Learning Outcomes

Students will be able to know the

- ❖ definition of rest and motion and related few examples.
- ❖ reason why rest and motion are relative terms.
- ❖ different types of motion with examples and illustrations.
- ❖ differences between uniform and nonuniform motion.
- ❖ definition of distance or path length.
- ❖ speed of a moving object and its calculation.

- ❖ average speed and its calculation.
- ❖ weight of an object.
- ❖ differences between mass and weight.
- ❖ measurement of weight.

Evaluative Questions

The teacher should ask the following questions to evaluate the students.

1. Define rest with one example.
2. What is motion?
3. When is motion said to be uniform?
4. What is meant by distance?
5. What is oscillatory motion?
6. Name the distance covered by the moving object in unit time.
7. Write the SI unit of speed.
8. Is weight a vector quantity?