

Force and Pressure

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ♦ force and its effects
- \diamond cause of force
- \diamond types of force
- ♦ pressure, pressure in liquids and gases
- \diamond atmospheric pressure and its applications

TEACHING AIDS

Pictures/charts/models/animations on the effects of force, cause of force, two forces applied in same direction, two forces applied in opposite direction; muscular force, mechanical force, frictional force, magnetic force, gravitational force, electrostatic force; pressure in liquids and gases, applications of atmospheric pressure.

LESSON PLAN

- ♦ The teacher should start the chapter with Gear Up and ask students the questions given in this section.
- \diamond Now, the teacher should define force and ask the students to perform Activity 1.
- ♦ The teacher should discuss effects and cause of force and demonstrate Activity 2.
- ♦ The teacher should discuss different types of contact and noncontact forces and demonstrate Activities 3, 4, 5 and 6. The students should be asked to study knowledge desk and activity 3 given at page 142.
- ♦ The teacher should define pressure and its SI unit.
- ♦ The teacher should explain pressure in liquids and gases and demonstrate the Activities 7, 8, 9 and 10.
- ♦ Now, the teacher should explain atmospheric pressure and its application and demonstrate Activities 11 and 12.
- \diamond Now, students should be asked to solve Check Points 1, 2 and 3.
- At last the teacher will sum up the lesson by going through the points given under the head 'Wrap Up Now'.

♦ The teacher will help the students to solve all the questions given in exercises under the head 'Practice Time' and will also discuss the topics given under the head 'Formative Tasks'.

BOOST UP

- ♦ The students should be encouraged to explore more examples of effects of force and contact and noncontact forces in everyday life.
- ♦ The teacher should give more examples of application of atmospheric pressure from everyday life.

EXPECTED LEARNING OUTCOMES

The students know about

- \diamond force and its effects.
- ♦ meaning of pressure and action of pressure in liquids and gases.
- ♦ definition of atmospheric pressure and its applications.

EVALUATIVE QUESTIONS

The teacher may ask the following questions for evaluating the understanding of students:

- 1. Define force and mention its two effects.
- **2.** How is a force caused?
- 3. Write the kinds of contact forces with one example.
- 4. Write the differences between magnetic and gravitational forces.
- 5. What is meant by weightlessness?
- 6. Name the force applied per unit area.
- 7. Write the SI unit of pressure.
- 8. Define atmospheric pressure and write its applications.