Force and Pressure

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- force, its cause and effects
- ♦ action of more than two forces on a body
- types of force
- pressure and factors affecting pressure
- pressure in liquids and gases
- \$\dagger\$ atmospheric pressure and its applications

TEACHING AIDS

Pictures/charts/models/animations on the cause of force, effects 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 will start the lesson with 'Science Vocabulary' section by telling the meaning/definition of new terms which are used in the chapter.
- ♦ Now, the teacher should define force and cause of force.
- ♦ The teacher should discuss effects of force.
- ♦ The teacher should discuss the results of action of more than one forces on a body by demonstrating Activities 1 and 2.
- ♦ The teacher should discuss different types of contact and noncontact forces.
- ♦ The teacher should define pressure and its SI unit.
- ♦ The teacher should explain pressure in liquids and gases and demonstrate the Activities 3 and 4.
- Now, the teacher should explain atmospheric pressure and its application and demonstrate Activity 5.
- ♦ Now, students should be asked to solve Check Points 1, 2 and 3.
- ♦ The teacher should ask students to practise numerical problems based on pressure.

♦ The teacher will help the students to solve the questions given in exercises under the head 'Let's Drill Our Skills' and to complete the flowchart given under the head 'Let's Memorise'.

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

- ♦ force and its effects.
- ♦ cause, action of more than one forces on a body and different kinds of contact and noncontact forces.
- ♦ pressure and pressure in liquids and gases.
- ♦ 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 each.
- **4.** What are magnetic and gravitational forces?
- **5.** What is meant by weightlessness?
- **6.** What is the force applied per unit area called?
- **7.** Write the SI unit of pressure.
- **8.** Define atmospheric pressure and write its applications.