

# Chapter 1

## Matter

### LESSON PLAN

#### SPECIFIC OBJECTIVES

The students will learn about

- ❖ matter; atoms and molecules
- ❖ main postulates of kinetic molecular theory of matter
- ❖ classification of matter on different criteria
- ❖ interconversion of different states of matter
- ❖ law of conservation of mass

#### Teaching Aids

**Pictures/charts/models/animation** on different states of matter; classification on the basis of physical state, appearance and composition; sublimation and deposition of ammonium chloride; law of conservation of mass

#### Teaching Strategy

- ❖ Teacher will start the chapter by defining matter, atoms, molecules and will discuss the main postulates of kinetic molecular theory of matter.
- ❖ Teacher will discuss classification of matter based on its physical state, i.e., solids, liquids and gases and their properties; its appearance, i.e., homogeneous and heterogeneous materials; its composition, i.e., pure and impure substances.
- ❖ Now, teacher will ask the students to solve 'Check Point 1'.
- ❖ Teacher will explain interconversion of different states of matter and will demonstrate Activity 1.
- ❖ Teacher will discuss differences between boiling and evaporation.
- ❖ Teacher will explain the law of conservation of mass by demonstrating Activity 2.
- ❖ Now, teacher will ask students to solve 'Check Point 2'.
- ❖ At last, teacher will sum up the lesson by going through the points given under the head 'Wrapping It Up'.

- ❖ Teacher will finally help students to answer the questions given under the head 'Test Yourself'.

### Boost Up

- ❖ Teacher can help students to perform the activities given in chapter.
- ❖ Teacher can make students revise new terms given under the head 'Know These Terms'.
- ❖ Teacher can encourage students to learn the facts given under the head 'Something More'.
- ❖ Teacher can show animations related to the topics taught, if possible.
- ❖ Teacher should ask students to learn the main postulates of kinetic molecular theory of matter.
- ❖ Teacher should ask students to learn more examples of homogeneous and heterogeneous materials.
- ❖ Teacher should ask students to learn more examples of interconversion of different states of matter.

### Expected Learning Outcomes

The students understand and know:

- ❖ matter, atoms and molecules.
- ❖ classification of matter based on its physical state, appearance and composition.
- ❖ interconversion of different states of matter.
- ❖ law of conservation of mass.

### Evaluative Questions

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

1. What is the difference between atoms and molecules?
2. The particles of which state of matter are closely packed?
3. Define elements and write their two examples.
4. Define homogeneous materials.
5. Is the mixture of oil and water heterogeneous?
6. What is meant by freezing?
7. What is the process of slow conversion of a liquid into its gaseous state called?
8. State law of conservation of mass.