

# Chapter 3

## Elements, Compounds and Mixtures

### LESSON PLAN

#### SPECIFIC OBJECTIVES

The students will learn about

- ❖ elements, compounds and mixtures
- ❖ physical properties involved in the separation of mixtures
- ❖ commonly used methods of separation of mixtures

#### Teaching Aids

**Pictures/charts/models/animation** on classification of matter and its constituents; commonly used methods of separation of mixtures.

#### Teaching Strategy

- ❖ Teacher will start the chapter by defining matter and discussing classification of matter.
- ❖ Now, teacher will explain the elements and their classification, i.e., metals, nonmetals, metalloids and noble gases.
- ❖ Teacher will explain compounds and mixtures.
- ❖ Now, teacher will ask the students to solve 'Check Point 1'.
- ❖ Teacher will discuss differences between compounds and mixtures, and differences between heterogeneous and homogeneous mixtures.
- ❖ Now, teacher will ask the students to solve 'Check Point 2'.
- ❖ Teacher will discuss physical properties involved in the separation of mixtures and will explain commonly used methods of separation of mixtures by demonstrating Activities 1, 2 and 3.
- ❖ Then, teacher will ask the students to solve 'Check Point 3'.
- ❖ 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 more examples of metals, nonmetals, noble gases and metalloids. Also, to learn the atomicity of different atoms and molecules.
- ❖ Teacher should ask students to learn examples of mixtures based on the physical state of their constituents.

## Expected Learning Outcomes

The students understand and know:

- ❖ matter and its classification
- ❖ elements, compounds and mixtures
- ❖ homogeneous and heterogeneous mixtures.
- ❖ physical properties involved in the separation of mixtures.
- ❖ commonly used methods of separation of mixtures.

## Evaluative Questions

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

1. Define elements and give their two examples.
2. What are compounds?
3. List the differences between homogeneous and heterogeneous mixtures.
4. Name the elements present in sodium chloride.
5. Name the method used to separate insoluble solid components from liquid components.
6. Which method is used to separate the mixture of immiscible liquids?
7. Name two substances which sublime easily.
8. Name the mixtures whose constituents can be easily separated.