# Chapter 5

## Language of Chemistry

### **LESSON PLAN**

#### **SPECIFIC OBJECTIVES**

The students will learn about

- ♦ chemical reactions
- ♦ conditions affecting the chemical reactions
- characteristics of chemical reactions
- chemical equations

#### **Teaching Aids**

**Pictures/charts/models/animation** on chemical reactions, i.e., reactant and product; conditions affecting chemical reactions; characteristics of chemical reactions; chemical equations

#### **Teaching Strategy**

- Teacher will start the chapter by defining chemical reactions and will explain reactants and products of a chemical reaction by demonstrating Activity 1.
- Teacher will discuss the conditions that affect chemical reactions.
- Teacher will discuss characteristics of chemical reactions by demonstrating Activities 2, 3, 4 and 5.
- Now, teacher will ask the students to solve 'Check Point 1'.
- Teacher will define chemical equations and will explain rules for writing and balancing chemical equations.
- 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 differences between reactants and products by giving more examples of chemical reactions.
- Teacher should ask students various conditions that affect chemical reactions.
- Teacher should ask students the role of catalyst in chemical reactions.
- Students should be asked to write few reactions in which precipitate is formed.
- Teacher should also give students more examples on balancing chemical reactions.

#### **Expected Learning Outcomes**

The students understand and know:

- chemical reactions, reactants and products of a chemical reaction.
- conditions affecting the chemical reactions.
- characteristics of chemical reactions.
- identification of occurrence of a chemical reaction.
- rules of writing chemical equations and rules to balance them.

#### **Evaluative Questions**

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

- **1.** Define a chemical reaction.
- 2. What are the new substances formed in a chemical reactions called?
- 3. What happens when electricity is passed through water?
- 4. Which factor accelerates the rate of a chemical reaction?
- 5. Which catalyst is used in the formation of ammonia?
- **6.** Balance the following chemical equation:

Na +  $Cl_2 \longrightarrow NaCl$ 

7. Define a balanced chemical equation.