

UNIT

10

CHANGES AROUND US



Learning Objectives



After the completion of this lesson, students will be able to:

- ◆ define chemical reaction.
- ◆ differentiate chemical changes from physical changes.
- ◆ know about the factors which determine a chemical reaction.
- ◆ know about the importance and effects of chemical reactions.
- ◆ identify the chemical reactions in day to day life.
- ◆ observe the changes during a chemical reaction.

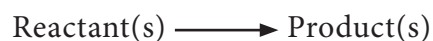
Introduction

Have you ever visited Qutub Minar in Delhi? There you can see a rust resistant iron-pillar. It has not rusted for more than 1500 years. But, not all things are unchanged like this. Many things we see in our life are changing. You could have noticed milk turning into curd. How it is happening? We see number of changes in our surrounding. Some of them are physical changes and some of them are chemical changes.

As you have studied earlier, changes like folding and unfolding a paper, drying wet clothes, bending of iron rod are some examples for physical changes. On the other hand, changes like burning of paper, digestion of food, turning of milk into curd and decaying of vegetables are some of the examples for chemical changes. In this lesson, you will study about chemical changes, factors determining chemical changes and the effects of chemical changes.

10.1 Chemical changes

A chemical change is a permanent and irreversible change which produces a new substance. Chemical changes are otherwise called as chemical reactions, because one or more substances (reactants) undergo a reaction to form one or more new substances (products).



Activity 1

Adithya wants to classify the following changes as physical or chemical. Can you help him?

- | | |
|-----------------------|-----------------------|
| 1. Melting of ice | 2. Ripening of fruits |
| 3. Rusting of iron | 4. Spoilage of food |
| 5. Burning of wood | 6. Bursting crackers |
| 7. Burning of camphor | |

Physical Changes	Chemical Changes