

Chapter 2

Physical and Chemical Changes

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ❖ changes occurring in the surroundings
- ❖ classification of changes
- ❖ fast and slow changes
- ❖ desirable and undesirable changes
- ❖ periodic and nonperiodic changes
- ❖ reversible and irreversible changes
- ❖ physical change, its characteristics and uses
- ❖ chemical change, its characteristics and uses
- ❖ endothermic and exothermic reactions

Teaching Aids

Pictures/charts/models/animation on fast, slow, desirable, undesirable, physical, chemical, reversible and irreversible changes occurring around us; differences between physical and chemical changes

Teaching Strategy

- ❖ Teacher will start the chapter by giving examples of changes occurring around us.
- ❖ Teacher will discuss changes classified in various ways, i.e., fast and slow changes, desirable and undesirable changes, periodic and nonperiodic changes, reversible and irreversible changes and will demonstrate Activities 1, 2, 3, 4, 5 and 6.
- ❖ Now, teacher will ask the students to solve 'Check Point 1'.
- ❖ Teacher will explain physical changes by demonstrating Activities 7, 8, 9, 10 and 11, and will discuss their characteristics and uses.
- ❖ Now, teacher will ask the students to solve 'Check Point 2'.
- ❖ Teacher will explain chemical changes by demonstrating Activities 12, 13, 14, 15 and 16, and will discuss their characteristics and uses.

- ❖ Then, teacher will ask 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.
- ❖ Students should be encouraged to give more examples of fast and slow changes, desirable and undesirable changes, periodic and nonperiodic changes, etc.

Expected Learning Outcomes

The students understand and know:

- ❖ changes occurring around them.
- ❖ classification of changes in various ways
- ❖ fast and slow changes, desirable and undesirable changes, periodic and nonperiodic changes, and reversible and irreversible changes.
- ❖ physical changes, their characteristics, examples and uses.
- ❖ chemical changes, their characteristics and uses.
- ❖ exothermic and endothermic reactions.
- ❖ differences between physical and chemical changes.

Evaluative Questions

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

1. Is lighting a matchstick a fast change?
2. What kind of change repeats itself after a fixed interval of time?
3. Define physical change and give its one example.
4. Give two examples of chemical changes.
5. Are folding, dissolving and melting reversible changes? Why?
6. Give two characteristics of chemical changes.
7. List the differences between endothermic and exothermic reactions.
8. Are most physical changes temporary?