Chapter 1

Matter and Its Composition

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- material and matter
- need for classifying objects
- composition and classification of matter
- properties of solids, liquids and gases
- change of states of matter

Teaching Aids

Pictures/charts/models/animation on composition and classification of matter; arrangement of molecules in three physical states of matter; properties of solids, liquids and gases; change of states of matter

Teaching Strategy

- Teacher will start the chapter by defining material.
- Teacher will define classification and its need in everyday life.
- Teacher will define matter and discuss air and water as matter by demonstrating Activities 3, 4 and 5.
- Now, teacher will ask the students to solve 'Check Point 1'.
- Teacher will discuss composition of matter and explain classification of matter based on its physical state and chemical constitution demonstrating Activities 6, 7, 8 and 9.
- Now, teacher will ask the students to solve 'Check Point 2'.
- Now, teacher will discuss properties of solids, liquids and gases.
- Teacher will explain compressibility of matter by demonstrating Activity 10.
- Teacher will then define diffusion.
- Teacher will explain change of states of matter by changing temperature and applying pressure.

- 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.
- Teacher should call each student and ask to define matter and material.
- Students should be asked to write few objects made from plastic, wood, iron, steel, etc.
- Teacher should ask the students to define air and water as matter.
- Students should be asked to group objects based on appearance, texture, solubility, ability to float or sink in water, transparency, good and poor conductors of heat and electricity.
- Teacher should assign Activities 1 and 2 as home assignment and discuss the result in the class.

Expected Learning Outcomes

The students understand and know:

- material and matter.
- necessity for classifying objects.
- composition and classification of matter.
- properties of solids, liquids and gases.
- compressibility of matter.
- change of states of matter.

Evaluative Questions

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

1. Write the differences between matter and material.
2. Why is air called matter?
3. What is meant by intermolecular forces of attraction?
4. In which state of matter are molecules very closely packed?
5. Which state of matter has a definite shape and a definite volume?
6. Why do gases flow easily?
7. Name the two ways by which matter can be changed from one state to another.
8. What is the intermixing of two different types of matter on their own called?