

# 4

## Kinds of Materials

### LESSON PLAN

#### SPECIFIC OBJECTIVES

The students will learn about

- ✧ objects around us
- ✧ properties of materials
- ✧ solubility, density and transparency of materials
- ✧ magnetic and nonmagnetic materials
- ✧ need for classifying objects

#### TEACHING AIDS

**Pictures/charts/models/animation** on objects of different shapes and sizes; made of metal, plastic, glass, paper, wood and leather; magnet (all as given in the chapter).

#### LESSON PLAN

- ✧ First, the teacher should start the chapter with Gear Up and discuss the questions given in the section.
- ✧ Teacher should discuss the grouping of objects on the basis of materials they are made of by performing Activity 1.
- ✧ Teacher should explain that objects are made of different materials, and also different objects are made of same material (as given in Table 4.1).
- ✧ Teacher should explain the properties of materials (as described in chapter).
- ✧ Teacher should discuss to categorise objects as lustrous and nonlustrous by performing Activity 2 in the class.
- ✧ Teacher should explain to categorise objects as soluble and insoluble with the help of Activity 3 given at page 50.
- ✧ The teacher should discuss the concept of floating and sinking and categorise objects based on them with the help of Activities 4 and 5 respectively.
- ✧ Students should also be taught the property of transparency by performing Activity 6.
- ✧ The teacher should discuss magnetic and nonmagnetic materials with the help of Activity 7.
- ✧ The teacher should discuss insulators and conductors of heat and electricity.

- ❖ The teacher should discuss the necessity of classifying objects.
- ❖ Students should also be asked to solve the questions given in Check Points 1, 2 and 3.
- ❖ At last, the teacher will sum up the lesson by going through the points given under the head 'Wrap Up Now'.
- ❖ The teacher will help the students to solve the questions given in exercises under the head 'Practice Time' and will also discuss the topics given under the head 'Formative Tasks'.

### **BOOST UP**

- ❖ First, the teacher should make some groups of students. Now, teacher should write names of four to five different objects on the board. Then he/she should call one student from each group and ask to name the materials used for making the objects written on the board. The group of students, who will give correct name of all the given objects, will be declared as the group of intelligent students by the teacher.
- ❖ The teacher should also ask the students to name lustrous and nonlustrous objects.
- ❖ Students should be asked to name two soluble materials and two insoluble materials.

### **EXPECTED LEARNING OUTCOMES**

The students understand and know the

- ❖ different materials used to make different objects.
- ❖ categorisation of objects based on the properties of the materials they are made of.
- ❖ necessity of categorisation of objects.

### **EVALUATIVE QUESTIONS**

The teacher may ask the following questions for evaluating the learning and understanding of students:

1. Name four materials by which an object can be made?
2. What is meant by classification?
3. Name two objects each of lustrous and nonlustrous materials.
4. Is carbon dioxide soluble in water?
5. Name the objects through which only partial light can pass.
6. What is the need for classifying objects?