

# 5

## Coal and Petroleum

### LESSON PLAN

#### SPECIFIC OBJECTIVES

The students will learn about

- ✧ natural resources, i.e., exhaustible and inexhaustible
- ✧ fossil fuels, i.e., coal, petroleum and natural gas and their formation
- ✧ limitations of fossil fuels
- ✧ ways to save fossil fuels

#### TEACHING AIDS

**Pictures/charts/models/animations** on exhaustible and inexhaustible natural resources, coal and its uses, coke, coal tar, coal mines in India, petroleum and natural gas deposits under the earth, a petroleum refinery, a CNG bus.

#### LESSON PLAN

- ✧ The teacher will start the lesson with 'Science Vocabulary' section by telling the meaning/definition of new terms which are used in the chapter.
- ✧ Now, the teacher should define natural resources and explain exhaustible and inexhaustible natural resources.
- ✧ The teacher should define fossil fuels and discuss the properties, formation, uses and types of coal and its mining.
- ✧ The teacher should demonstrate Activity 3 in the class.
- ✧ The teacher should discuss about petroleum, its formation, refining and impacts of its uses on environment.
- ✧ The teacher should discuss the uses and advantages of natural gas.
- ✧ The teacher should explain the need of conserving fossil fuels.
- ✧ Now, the teacher should ask students to solve Check Points 1 and 2.
- ✧ The teacher will help the students to solve the questions given in exercises under the head 'Let's Drill Our Skills' and to complete the flowchart given under the head 'Let's Memorise'.

### **BOOST UP**

- ✧ The teacher should assign Activities 1, 2, 3, 4, 5 and 6 as projects and discuss the results in the class.
- ✧ Students should be encouraged to explore more information related to coal, coke, coal gas, coal tar, their uses and formation.
- ✧ The teacher should encourage students to collect information on extraction of petroleum and natural gas.

### **EXPECTED LEARNING OUTCOMES**

The students know about

- ✧ natural resources.
- ✧ exhaustible and inexhaustible natural resources.
- ✧ fossil fuels, their formation and their kinds.
- ✧ environmental impacts of using fossil fuels.
- ✧ need of conserving fossil fuels.

### **EVALUATIVE QUESTIONS**

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

1. Define natural resources and write their two kinds.
2. Mention two uses of coal.
3. How is petroleum formed?
4. Write two uses of petrol.
5. What does natural gas consist of?
6. Write few ways used to save fossil fuels.