

LESSON PLAN

SPECIFIC OBJECTIVES

- The students will learn about
- ❖ electric current
 - ❖ electric circuit and its components
 - ❖ circuit diagram
 - ❖ heating effect of electric current – electric bulb and fuse
 - ❖ magnetic effect of electric current
 - ❖ electromagnet and electric bell

TEACHING AIDS

Pictures/charts/models/animations on an electric circuit showing its main components, simple circuit diagram (with open and closed circuits); some electrical appliances working on heating effect of electricity; electric fuse, fuse used in electrical appliances, MCB; electromagnet, structure and function of electric bell.

LESSON PLAN

- ❖ Teacher will start the chapter by going through the points given in 'Know these points before you start' section.
- ❖ Teacher will define electricity and its source.
- ❖ Teacher will define electric circuit and its components with their symbols.
- ❖ Teacher will discuss the conditions necessary for electric current to flow in an electric circuit.
- ❖ Teacher will explain how to draw a circuit diagram with special reference to open and closed circuits.
- ❖ Now, teacher will ask students to solve Check Point 1.
- ❖ Teacher will discuss the heating effect of electric current by performing related activity given in the chapter.
- ❖ Teacher will then discuss the characteristics of electrical appliances – bulb and electric fuse, based on the heating effect of electric current.

- ❖ Teacher will ask students to solve Check Point 2.
- ❖ Now, teacher will define the magnetic effect of electric current by performing related activity given in the chapter.
- ❖ Teacher will describe electromagnetism and its applications—an electromagnet by performing the activity given in the chapter.
- ❖ Then teacher will also discuss the factors affecting the strength of an electromagnet and the uses of electromagnets.
- ❖ Teacher will define an electric bell, its components and working.
- ❖ Now, teacher will ask students to solve Check Point 3.
- ❖ Teacher will make students revise the new terms given under the head 'Know These Terms'.
- ❖ Finally, teacher will help students to solve the questions given in exercises under the head 'Practice Time' and 'Think Zone'.

BOOST UP

- ❖ Teacher should demonstrate and explain activities given in the chapter.
- ❖ Teacher should discuss the conversation of Annu and Mannu given in between the topics.
- ❖ Students should be encouraged to learn symbols of electric components in addition to those given in the chapter and their use in a circuit diagram.

EXPECTED LEARNING OUTCOMES

The students know about

- ❖ concept of electric current.
- ❖ electric circuit, its components and circuit diagrams.
- ❖ heating and magnetic effects of electric current and their applications.
- ❖ short-circuiting or overloading and fuse
- ❖ an electromagnet and its applications.
- ❖ an electric bell, its components and working.

EVALUATIVE QUESTIONS

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

1. Define insulators and conductors with two examples each.
2. What is meant by an electric circuit?
3. Draw the symbol of bulb and key.
4. What is a fuse in an electric circuit?
5. Mention few uses of electromagnets.
6. Write the role of armature and gong in an electric bell.