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Chemical Effects of Electric Current

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ✧ conduction of electric current through liquids
- ✧ LED
- ✧ electrical conductivity of water
- ✧ chemical effects of electric current
- ✧ electrolysis and its applications
- ✧ electroplating and why it is done

TEACHING AIDS

Pictures/charts/models/animations on an electric circuit consisting of cell, bulb and key; coloured LED; electroplated objects, chrome-plated objects, silver-plated objects, etc.

LESSON PLAN

- ✧ The teacher should start the chapter with Gear Up and ask students the questions given in this section.
- ✧ Now, the teacher should define conductors of electricity and explain conduction of electric current through liquids. The teacher should demonstrate Activities 1, 2 and 3.
- ✧ The teacher should discuss about LED.
- ✧ The teacher should discuss electrical conductivity of water.
- ✧ The teacher should discuss chemical effects of electric current by defining the process of electrolysis and electroplating and by demonstrating the Activities 4 and 5.
- ✧ Students should be asked to solve Check Points 1 and 2.
- ✧ 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 all the questions given in exercises under the head 'Practice Time' and will also discuss the topics given under the head 'Formative Tasks'.

BOOST UP

- ✧ The teacher should ask students to learn the names of good conductors and bad conductors of electricity.
- ✧ Students should be asked to explore applications of LED, electrolysis and electroplating in everyday life.

EXPECTED LEARNING OUTCOMES

The students know about

- ✧ good and bad conductors of electricity.
- ✧ conduction of electric current through liquids.
- ✧ LED
- ✧ electrical conductivity of water.
- ✧ chemical effects of electric current – electrolysis and electroplating.
- ✧ applications of electrolysis and electroplating.

EVALUATIVE QUESTIONS

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

1. Define good conductors of electricity.
2. Write two examples of bad conductors of electricity.
3. Why is distilled water called poor conductor of electricity?
4. What is an LED?
5. What is the difference between electrolysis and electrolyte?
6. Define voltameter.
7. Why is electroplating of a metal done?