

Physical and Chemical Changes

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LESSON PLAN

SPECIFIC OBJECTIVES

- The students will learn about
- ✧ physical changes
 - ✧ chemical changes
 - ✧ rusting of iron and conditions necessary for it to take place
 - ✧ methods of preventing rusting
 - ✧ crystallisation

TEACHING AIDS

Pictures/charts/models/animations on some physical changes; some chemical changes; rusting of iron, methods to prevent rust; crystallisation, etc.

LESSON PLAN

- ✧ Teacher will start the chapter by going through the points given in 'Know these points before you start' section.
- ✧ Now, teacher will define physical changes by giving some examples and performing related activities given in the chapter.
- ✧ Teacher should define chemical changes with examples and performing related activities given in the chapter.
- ✧ Teacher will discuss the features of chemical changes which may be change in colour, release or absorption of heat or light energy, evolution of gas, production of sound and change in smell in different reactions.
- ✧ Now, teacher will ask students to solve Check Point 1.
- ✧ Teacher will describe the rusting of iron and conditions necessary for rusting to take place by performing activity given in the book.
- ✧ Teacher will discuss various methods to prevent rusting.
- ✧ Teacher will define the crystallisation by performing activity given in the chapter.
- ✧ Teacher will also explain the use of crystallisation in obtaining sea salt.

- ✧ Teacher will ask students to solve Check Point 2.
- ✧ 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.
- ✧ Teacher should discuss the facts given in the table.
- ✧ Teacher should also discuss the importance and occurrence of physical and chemical changes in everyday life.

EXPECTED LEARNING OUTCOMES

The students know about

- ✧ physical and chemical changes.
- ✧ features of chemical changes.
- ✧ uses of chemical changes.
- ✧ rusting of iron, conditions necessary for rusting and methods to prevent rusting.
- ✧ uses of crystallisation.

EVALUATIVE QUESTIONS

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

1. Define physical changes and write their two examples.
2. Mention two examples of chemical changes.
3. Write the differences between physical and chemical changes.
4. Explain rusting of iron.
5. How can rusting be prevented?
6. What is meant by crystallisation?
7. Name the process in which a layer of zinc is deposited on iron.