

Introduction to Magnetism

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ♦ discovery of magnet
- ♦ magnet and its different shapes
- ♦ magnetic and nonmagnetic materials
- ♦ properties of magnets
- ♦ poles of a magnet
- \diamond finding directions with magnets
- ♦ precautions while handling magnets
- ♦ uses of magnets

TEACHING AIDS

Pictures/charts/models/animation on magnets of different shapes; a bar magnet showing north and south poles; magnetic compass; magnetic crane; magnetic poles of the earth; keepers; applications of magnets in different devices – ATM card, credit card, etc.

LESSON PLAN

- ☆ Teacher will start the lesson with 'Science Vocabulary' section by telling the meaning/definition of new terms which are used in the chapter.
- ♦ Now, teacher should discuss the discovery of magnet.
- ♦ The teacher should define a magnet and tell the differences between artificial and natural magnets.
- ♦ The teacher should teach the students about different shapes of magnets.
- ♦ The teacher should explain the magnetic and nonmagnetic materials with the help of Activity 1.
- ♦ The teacher should explain different properties of magnets by performing Activities 2, 3, 4, 6 and 7 given in the chapter.
- ♦ The teacher should explain the magnetic behaviour of the earth due to magnetic materials inside its core.

- ♦ The teacher should discuss how to magnetise an iron bar by performing Activity 8.
- ♦ The teacher should also discuss precautions taken while handling magnets.
- ♦ The teacher should discuss the various uses of magnets.
- \diamond Students should be asked to solve Check Points 1, 2 and 3.
- ♦ 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 divide the students into two groups A and B and call one student from each group to write one magnetic substance and one nonmagnetic substance on the board. The group, who will give maximum correct answers, will be declared as a winner.

EXPECTED LEARNING OUTCOMES

The students understand and know the

- ♦ discovery of magnet and its uses.
- \diamond properties of magnets.
- ♦ differences between magnetic and nonmagnetic materials.
- ♦ care of magnet while using and when not using.
- \Rightarrow magnetic behaviour of the earth.

EVALUATIVE QUESTIONS

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

- 1. What is meant by a magnet?
- 2. Which materials are easily attracted by a magnet?
- 3. Mention four types of magnets having different shapes.
- 4. Write the differences between magnetic and nonmagnetic materials.
- 5. How can you say that magnetic poles always exist in pairs?
- 6. What does a magnetic compass consist of?
- 7. Mention four uses of magnets.