

Geometry

SPECIFIC OBJECTIVES

The students will

- know about basic geometrical shapes.
- learn how to form a rectangle, a square and a triangle using paper cutting and folding.
- learn to create designs on dotted paper using straight and curved lines.
- know the view of a solid object by observing it from different directions.
- be able to get the sketch of a three-dimensional object.
- know the number of faces, edges and vertices of a solid.
- understand the tangram.
- be able to read and understand the map of a locality.

CONTENTS EXPLAINED INSIDE THE CHAPTER

- Basic Geometrical Shapes (pages 135–138)
- Solids Around Us (pages 138–139)
- Surfaces of Solids And Their Sketches (pages 139–140)

TEACHING AIDS

A square grid paper, a dot paper, a coloured paper, a pair of scissors, different types of solid objects, paper, a pencil, etc.

TEACHING STRATEGY

- First, the teacher should take a triangular piece of square grid paper and explain them how to make the biggest rectangle/square on it. Then, she should ask them to complete the task given under 'Let Us Recall'.
- She should also discuss about different types of plane shapes with their features. She may involve them in performing paper folding activity for obtaining other shapes. For text and exercise, she should go to pages 135–138.

- Further, she should show a few solid objects to the class and ask them how they look like from different angles. Then, she provides them with some solids and asks to sketch their view in 3 groups of 1–4 students.
- Again, she should discuss about the nature of faces of the solids and motivate them to make rough sketches. Also, she should encourage them to recognise their faces, edges and vertices. For text and exercise she should go to pages 138–140.
- Thereafter, she should explain them how to move up-down, left-right on a square plane and search the item at a particular position. Then, she should ask them to complete the task given under Fun Zone.
- Henceforth, the teacher should involve them in creating different shapes using 5 or 7 pieces of tangram as shown under the puzzle.
- Then, she should motivate them to enjoy the Maths Lab Activity. If needed, she should help them.
- Finally, she should give the idea of a map and encourage them to make a rough sketch of any part of their surroundings.

EXPECTED LEARNING OUTCOMES

Students will be able to

- recognise different geometrical shapes.
- obtain few plane shapes using paper folding activity.
- explain the feature of these shapes.
- sketch the views of solids at different angles.
- explain the nature of surfaces of the given solids.
- recognise the faces, edges and vertices of the solids.
- create a variety of shapes by arranging 5 or 7 pieces of the tangram.
- draw a beautiful pattern on dot paper.
- understand and sketch the map of a locality.

For assessing Chapters 1–5, the teacher may assess the students using Periodic Test-2 or preparing a similar sheet.