Perimeter, Area and Volume

6

LESSON PLAN

SPECIFIC OBJECTIVES

The students will

- learn to calculate the perimeter of rectilinear shapes.
- know the formulas to find out the perimeter of a square and a rectangle.
- understand the meaning of the terms 'Area' and 'Volume'.
- learn how to calculate approximate area of the irregular shapes using a graph/a square paper.
- know the formulas to find out the area of a square and a rectangle.
- be able to find out the area of paths inside/outside the field/park/garden.
- learn to calculate the volume of a cube and a cuboid using formulas or by counting unit blocks.
- be able to calculate the area of a shape by splitting it into simpler squares/rectangles.

CONTENTS EXPLAINED INSIDE THE CHAPTER

- Perimeter (pages 175–178)
- Area (pages 178–180)
- More Area (pages 180–184)
- Volume (pages 184–187)

TEACHING AIDS

Tracing paper, chart paper, square grid/graph paper, a ruler, a measuring tape, a pencil, cubic and cuboidal boxes/solids, unit blocks, postcards, etc.

TEACHING STRATEGY

- To initiate the chapter, the teacher should ask the students to do 'Let Us Recall' exercise to recall the concept learnt in the previous class.

- Next, the teacher should talk to them about the perimeter of rectilinear shapes and describe the formula to calculate the perimeter of a rectangle/square. For text and exercise, she should go to pages 175–178.
- After that, the teacher should teach them the area of other shapes. Moreover, she should teach them how to derive formulas to calculate the area of a rectangle and a square. For text and exercise, she should go to pages 178–180.
- Further, the teacher should develop their ideas of irregular shapes using grid/graph papers. She should also explain to them how to find out the area of paths running across the field/parks, etc. For text and exercise, she should go to pages 180–184.
- Thereafter, the teacher should discuss with them about the terms **volume** and **space** with a demo for better understanding. She should describe them the formulas to find out the volume of a cuboid/a cube. For text and exercise, she should go to pages 184–187. For developing their interest, she can involve them in performing Maths Lab Activity.
- Now, the teacher should ask the students to solve the tasks given in the puzzle.

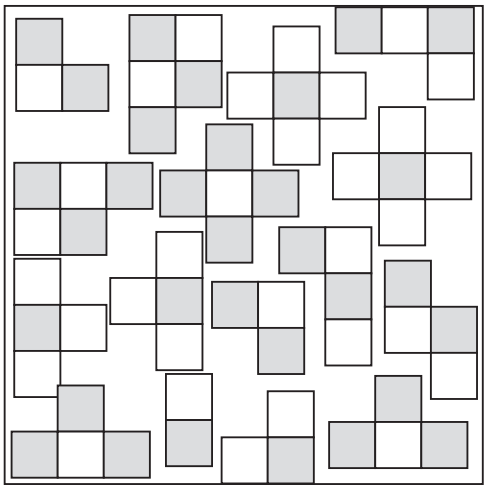
EXPECTED LEARNING OUTCOMES

Students are able to

- find out the perimeter of different rectilinear shapes.
- calculate the perimeter of a square/a rectangle using formulas.
- explain the terms 'area' and 'volume'.
- find out the area of a rectangle/square using formulas.
- calculate the area of irregular shapes using a grid/graph paper.
- find out the area of paths running inside/outside in a field.
- evaluate the area of some special shapes by dividing it into simpler squares/rectangles.

SUGGESTED FUN ZONE

Here are few cutouts that can be arranged to form a chessboard. The teacher may provide these cutouts to the students in groups and ask them to complete the board. The team may be rewarded if they do it first.



Cutouts to be pasted here.