

CLASS 5

MATHS

NCERT SOLUTIONS

NCERT Solutions for Class 5 Maths Chapter 10: Symmetrical Designs – Free PDF Download

Chapter 10 of Class 5 Maths Mela, Symmetrical Designs, explores reflection symmetry and rotational symmetry through rangoli, kolam, and design-completion activities.

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NCERT Solutions for Class 5 Maths Chapter 10: Symmetrical Designs

What this chapter teaches.

Reflection (line/mirror) symmetry — a shape has a line of symmetry if folding along that line makes both halves match exactly; vertical, horizontal, and diagonal lines of symmetry (for example, the letter A has a vertical line of symmetry, while H has both vertical and horizontal); and rotational symmetry — a shape that looks the same after being turned by 90, 180, or 270 degrees.

Activity 1 — Rangoli and Kolam Analysis.

Children look at traditional rangoli and kolam patterns and identify their lines of symmetry and any rotational symmetry.

Activity 2 — Complete the Design.

Given half of a symmetrical design on a grid, children complete the other half using the mirror line as a guide.

Activity 3 — Letter Symmetry Hunt.

Children check capital letters of the alphabet for lines of symmetry, sorting them into vertical-only, horizontal-only, both, or neither.

Why This Chapter Matters

Symmetry appears throughout nature, art, and architecture, and understanding it builds visual and spatial reasoning skills useful well beyond mathematics.

How to Use These Solutions

Try folding paper cutouts or looking at real rangoli patterns to spot lines of symmetry directly. Download the full chapter from our [Class 5 Maths NCERT book page](#), or browse the [Class 5 hub](#).