# 11 Shapes and Patterns
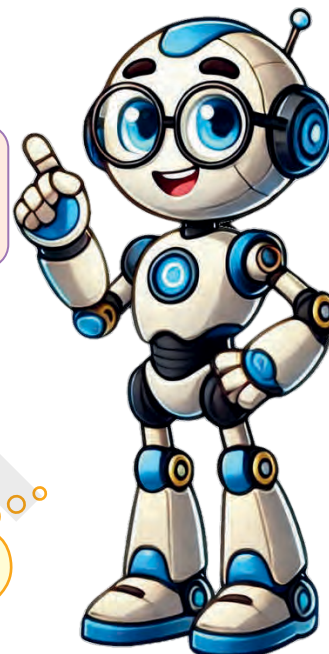
**We'll cover the following key points:**

→ Shape Around Us          → Patterns

**Still curious?** Talk to me by scanning the QR code.

**Hi, I'm EeeBee**

## Learning Outcomes

**By the end of this chapter, students will be able to:**

- Identify and name common shapes around us, like circles, squares, and triangles.
- Understand the characteristics of different shapes (e.g., number of sides, corners).
- Sort objects by their shapes (e.g., put all the circles together).
- Recognize shapes in real-life objects, like windows, books, and clocks.
- Create simple patterns using shapes, colors, or objects (e.g., red, blue, red, blue).
- Recognize repeating patterns in everyday objects and nature (e.g., stripes on clothes).
- Describe patterns using words like "first," "next," and "last."
- Complete simple patterns by adding the next shape or color.

## Guidelines for Teachers

Start by introducing basic shapes like circles, squares, triangles, and rectangles, helping students recognize them in their surroundings. Encourage students to look for shapes around the classroom or home, reinforcing the idea that shapes are everywhere. Teach the concept of patterns by showing simple repeating patterns with colors, shapes, or objects. Help students identify and create their own patterns, like red-blue-red-blue or big-small-big-small. Reinforce learning with fun activities like drawing shapes and making patterns with blocks or stickers.

**Observe the shapes in the picture. Colour the squares green, the triangles red, the rectangles yellow and the circles blue.**
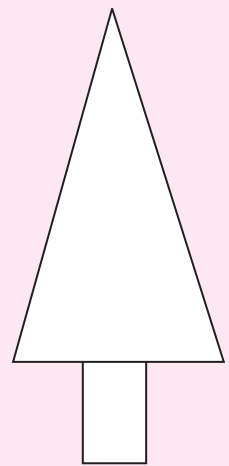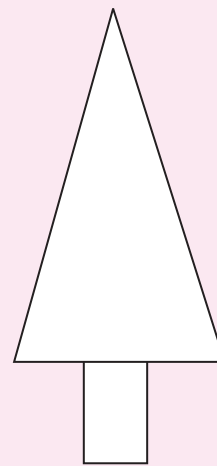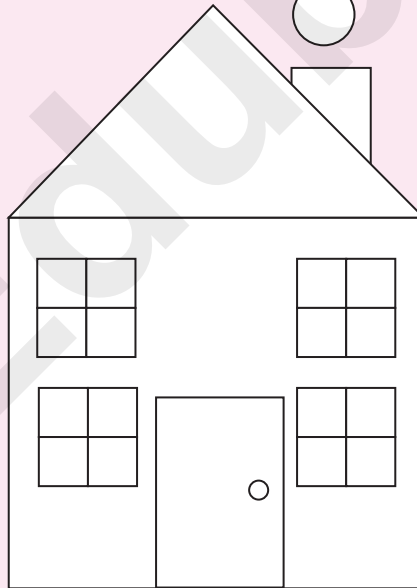
As Per NEP 2020

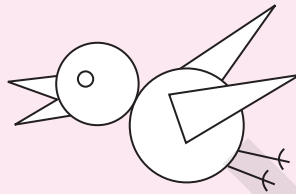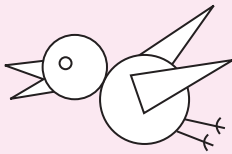**Art-integrated Learning**

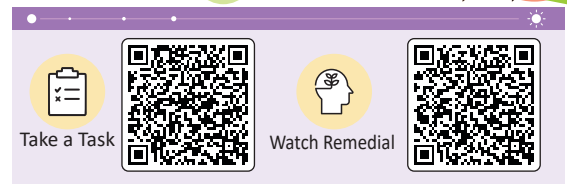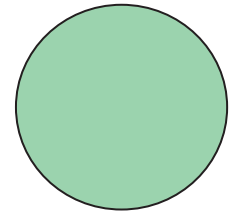triangle   square   rectangle   circle
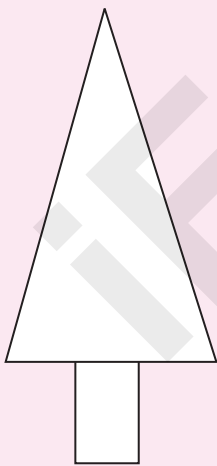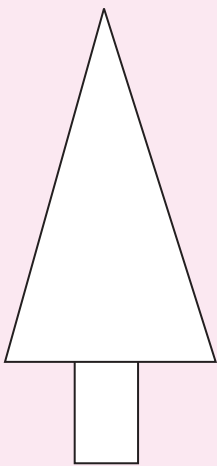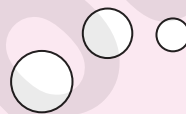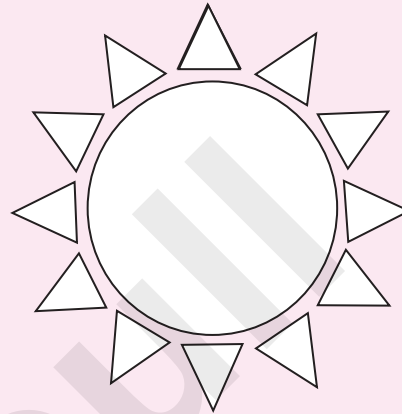
# Shape Around Us

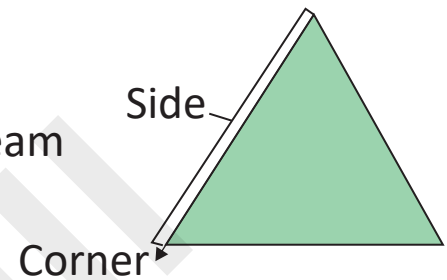## Circle

A circle has no sides or corners.

**Examples:** Pizza, ring, moon, ball, etc.

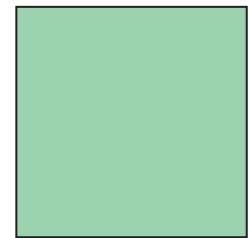## Triangle

A triangle has 3 sides and 3 corners.

**Examples:** Christmas tree, traffic signs, ice-cream cone, birthday cap, etc.

Side

Corner

## Square

A square has 4 equal sides and 4 corners.

**Examples:** Chess board, bread, clock, walls les,` etc.

## Rectangle

A rectangle has 4 sides, in which the opposite sides are equal. It has 4 corners.

**Examples:** Cell phones, chocolate, bed, ruler, etc.

## Oval

An oval is an outlines shape of an egg.

**Examples:** Egg, balloon, mirror, watermelon, etc.
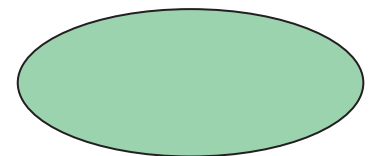
## Other shapes
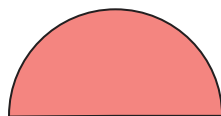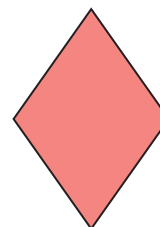
**Heart**    **Semi-circle**    **Diamond**    **Star**
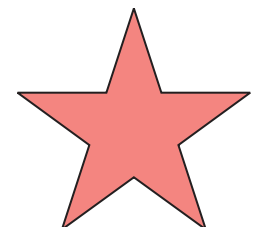
There are many more shapes that we come across in our daily life.

## Colour according to colour code.

| Square | ■ | Rectangle | ■ | Triangle | ▲ | Circle | ● |

## Patterns

Take a Task

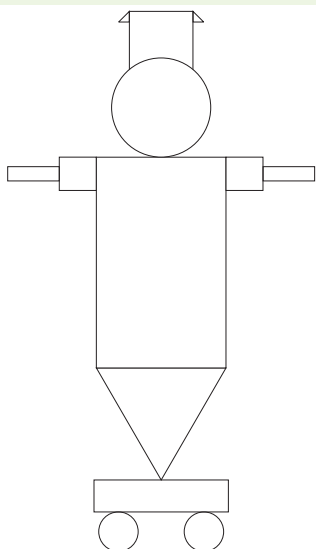Watch Remedial
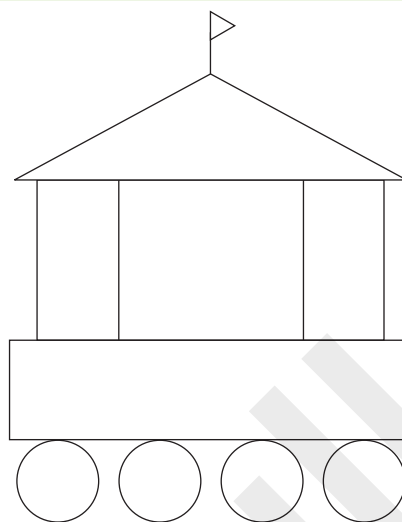
## There are patterns all around us.

These tiles are in Aman's kitchen.

Aman's mother made this rangoli on Diwali.

Have you ever seen a dog-cat drill?

Look at the picture given ahead. Dogs and Cats are standing one by one from the left.

🐕 🐈 🐕 🐈 🐕 🐈 🐕 ?

Can you say, who will join now?

Of course, a cat will join now.

As dogs and cats are standing one by one.

Now, we can say that , this type of standing forms a pa.  ern.
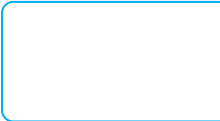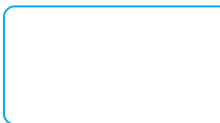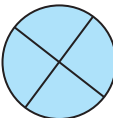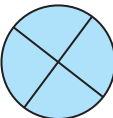
**1.** Observe the following patterns and draw what comes next.

**As Per NEP 2020** — **Art-integrated Learning**

(a) 🔺 🟢 🔺 🟢 🔺 [ ]

(b) 🙂 🙁 🙂 🙁 🙂 [ ]

(c) ✶ ⊗ ✶ ⊗ ✶ [ ]
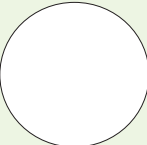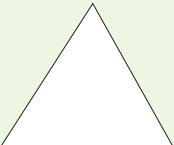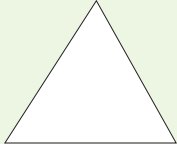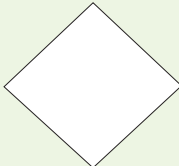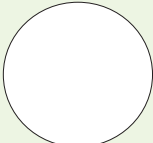
**2.** Study each pattern and draw the shape, write their name that comes next. One has been done for you.

(a) ▬ ▭ ▬ ▭ ▬ ▭ <u>Square</u>

(b) ⬜ 🟡 ⬜ 🟡 ⬜ _____

(c) 🔺 ▬ 🔺 ▬ 🔺 _____

**3.** Colour the following figures.

**Square** 🟥    **Rectangle** 🟦    **Triangle** 🔺    **Circle** ⚫

Math-1

**4.** Tick (✓) the largest shape and cross (×) the smallest shape in each group:
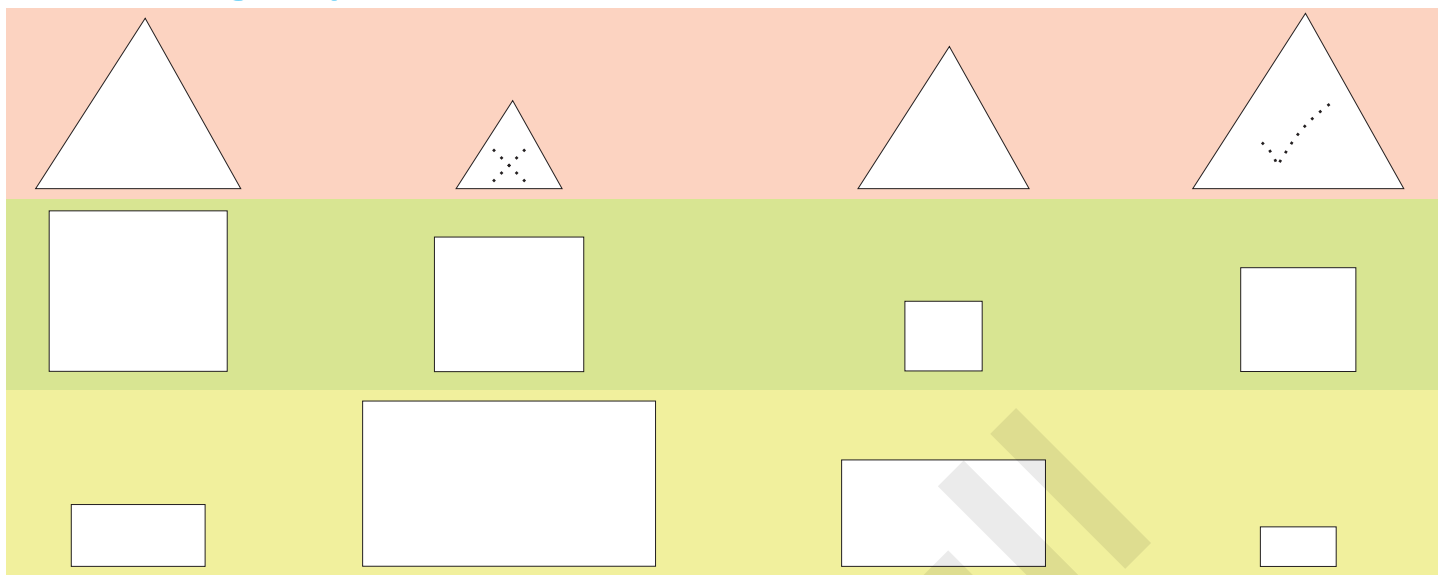
**Gap Analyzer™**

**1.** Tick (✓) the correct answer.

(a) A circle has no sides or _____ .

(i) corners ☐　　(ii) equal ☐　　(iii) edge ☐

(b) A _____ has 4 equal sides and 4 corners.

(i) Circle ☐　　(ii) Rectangle ☐　　(iii) Square ☐

(c) What is this? ⭐

(i) Heart ☐　　(ii) Star ☐　　(iii) Circle ☐

(d) _____ line?

(i) Straight line ☐　　(ii) curve line ☐　　(iii) both ☐

**2.** Fill in the blanks.

(a) 🟢 🟥 🔺 🟢 🟥 _____ ?

(b) A line can be _____ or _____ .

(c) This is _____ shape. ◆

(d) This is _____ shape. 🔵

**3.** **Match the following:**
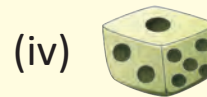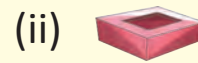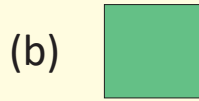
(a) ⬤

(b) 🟩

(c) 🟨

(d) 🔺

(i)

(ii)

(iii)

(iv)

## Mental Math

**Cric al Thinking**

Count the number of squares and triangles in the figures given below:

Number of squares = _____

Number of triangles = _____

## Fun Time Activity

⬤  ⬜  🔺  ⭐

**Colour the picture with colour code.**

|   |   | ⬤ | ⬜ | ⭐ | 🔺 |
|---|---|---|---|---|---|
| **G** | 🟩 |   | ✓ |   |   |
| **R** | 🟥 | ✓ |   |   |   |
| **B** | 🟦 |   |   |   | ✓ |
| **Y** | 🟨 |   |   | ✓ |   |

Math-1
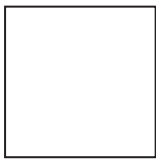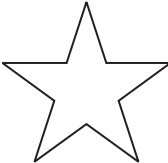
**Learning objective:** Creating shapes and determining the number of edges and corners.

**Materials required:** Matchsticks, chart paper, and glue.

**Procedure:**

1. The class is divided into groups and a leader is chosen for each group.

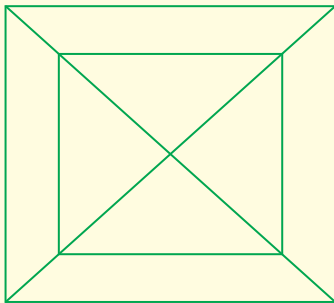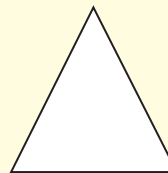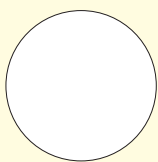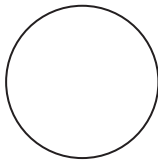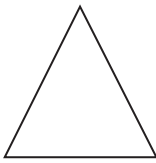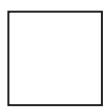2. Look at the blackboard. There is a triangle, a square, and a star drawn on it. The group leader will ask the team members to make the shapes drawn on the blackboard by arranging matchsticks on a chart paper. Make sure that the head of each matchstick touches the foot of the matchstick next to it, in each shape.

3. The group leader will check the work done by his/her group and make corrections, if any and ask them to paste the matchsticks on the chart paper with glue.

4. Each group will have to find and count the edges or sides and also the corners in each shape.

5. The matchstick heads show the corners of each shape and count the number of matchsticks will give the number of sides in every shape.

6. Each group is asked to fill in the following table.

| Shape | Number of edges | Number of corners |
|-------|-----------------|-------------------|
| △ | | |
| □ | | |
| ☆ | | |
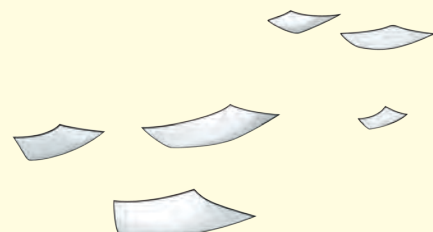
**Observation:** Number of matchsticks used to form particular shape is equal to the number of _____ in that shape.

**H O T S** **Look for some objects around you as given below.**
1. Find some object whose shadow can be a square.
2. Find some object whose shadow can be a circle.
3. Find some object whose shadow can be a rectangle.
4. Find some object whose shadow can be a triangle.