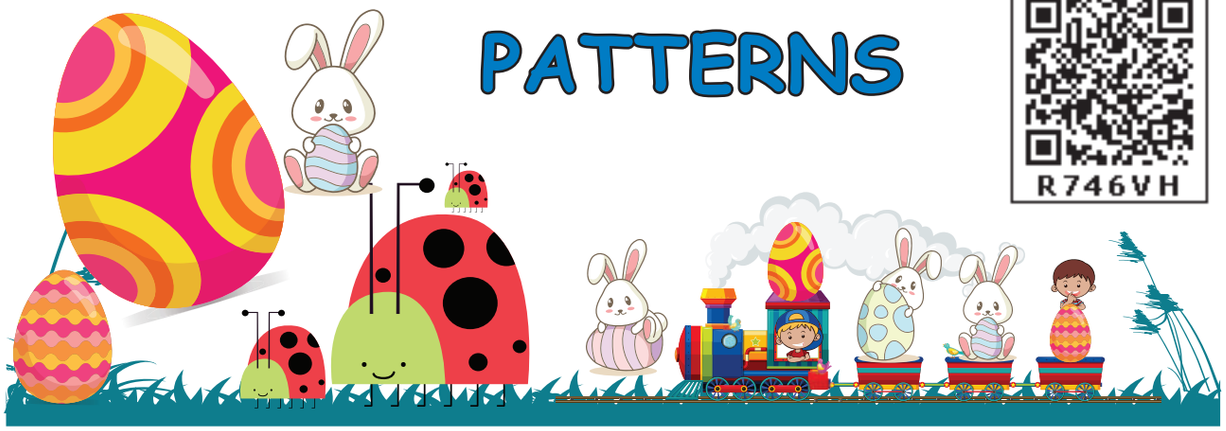
UNIT-3

PATTERNS



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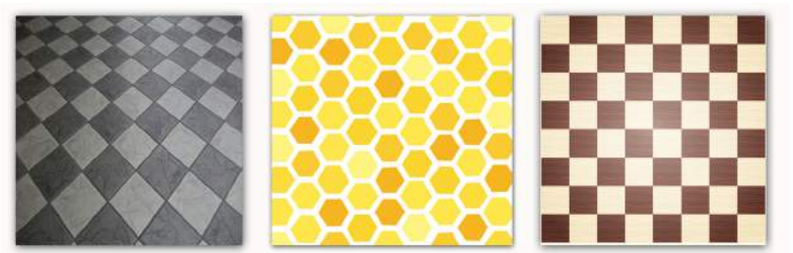
Observe the pictures given below.



Patterns

Patterns are formed when objects, events and numbers are repeated uniformly in a specific way.

3.1 Patterns in shapes

Creating patterns of regular and irregular shapes by stamping.

Example: **block patterns created using handprints and foot prints are shown below.**

Activity 1

Create patterns by impressing the following on a paper.

(i) Using dry leaves /fallen leaves.
(ii) Fingers, hands, toes, feet.
(iii) Using bangles.

Activity 2

Create patterns on your own by impressing the following on a chart paper and decorate your class room.

i. seeds ii. buttons iii. bottle lids

My own patterns

Pattern in geometrical shapes

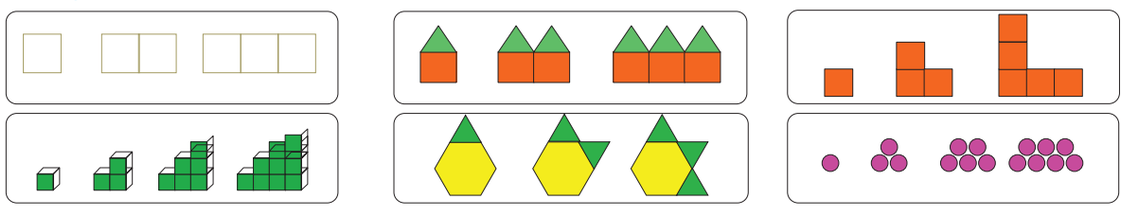
There are two types of patterns. They are

☺ Growing patterns. ☺ Repeated patterns.

Growing Patterns

If some patterns and designs increase or grow with straight lines and geometrical forms, they are called growing patterns.

Example:



Try this

Create some growing patterns using circle and square.

Practice

a. Continue the growing patterns.

1.  _____

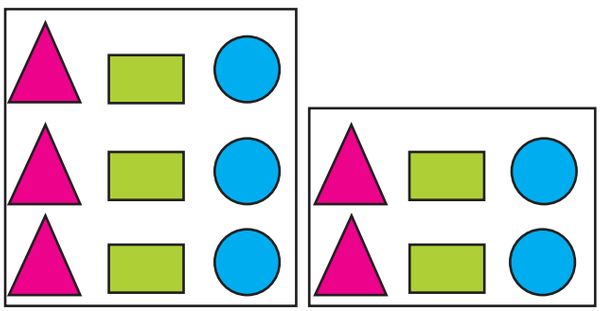
2.  _____

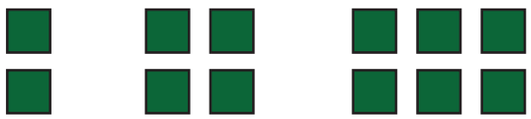
3.  _____

4.  _____

b. Continue the growing pattern.

1.  _____

2.  _____

3.  _____

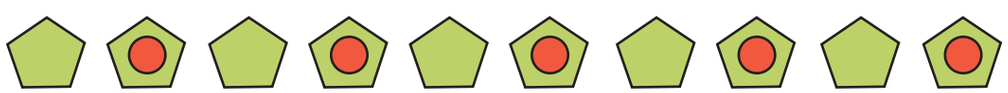
Repeated Patterns

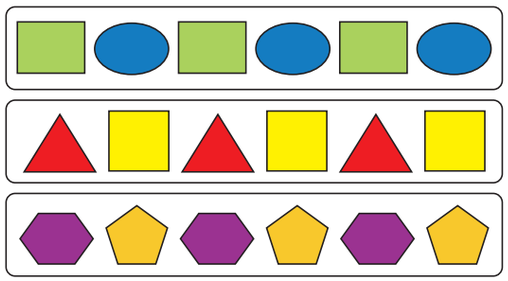
If some patterns and designs repeat with straight lines and geometrical shapes, they are called repeated patterns.

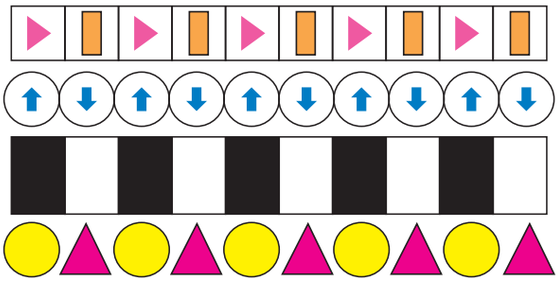
Example:

1. 

2. 

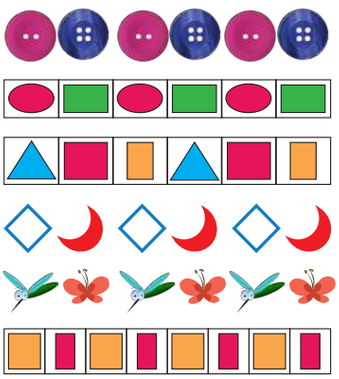
3. 





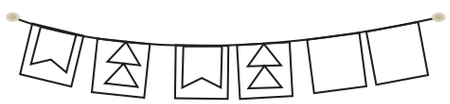
Practice

Continue the repeating patterns upto 3 steps in the space provided.



Activity 3

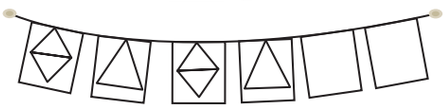
Complete the buntings by following the pattern.

1. 

2. 

3. 

4. 

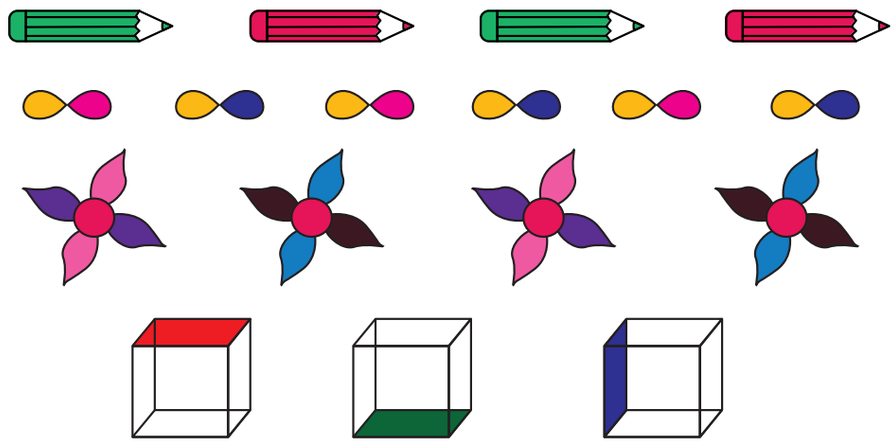
5. 

Do yourself

Draw some repeated patterns of your own.

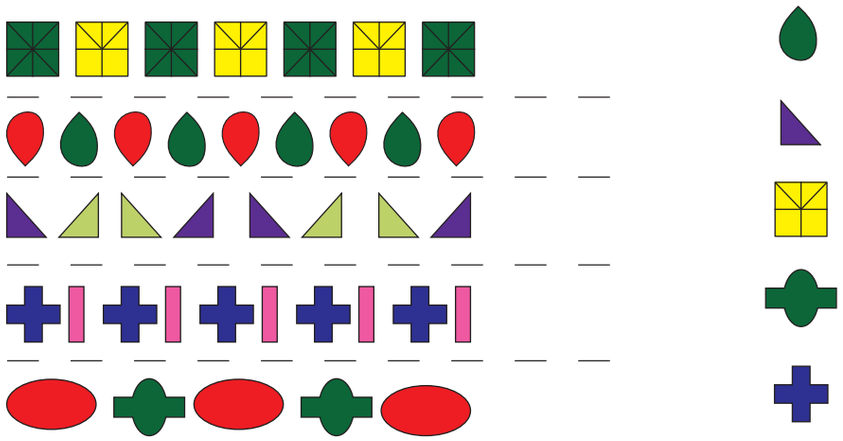
1.

Patterns are created by combining colours and shapes in different ways.

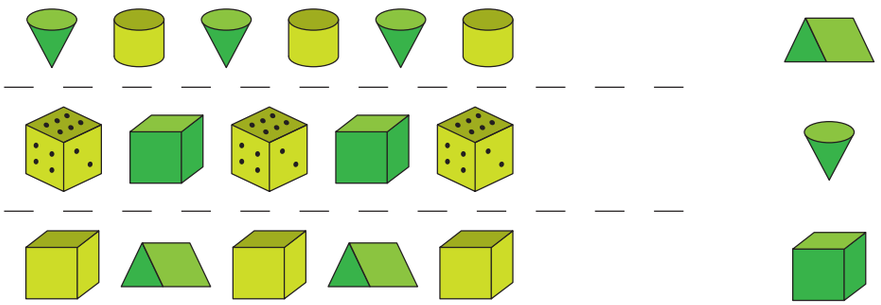


Activity 4

1. Match the following and complete the pattern.

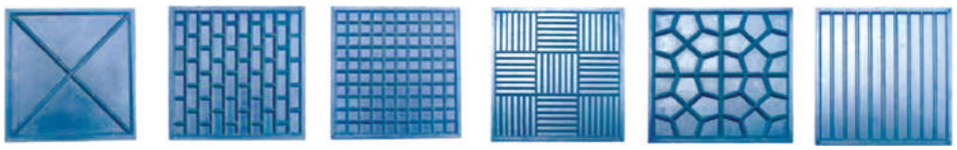


2. Match the following.

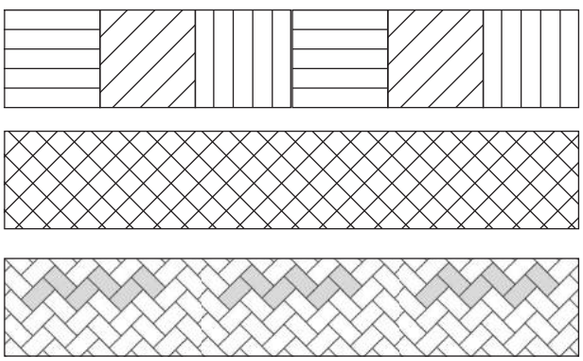


Creating pattern from straight lines

Example: Observe and extend the line patterns in the given boxes.

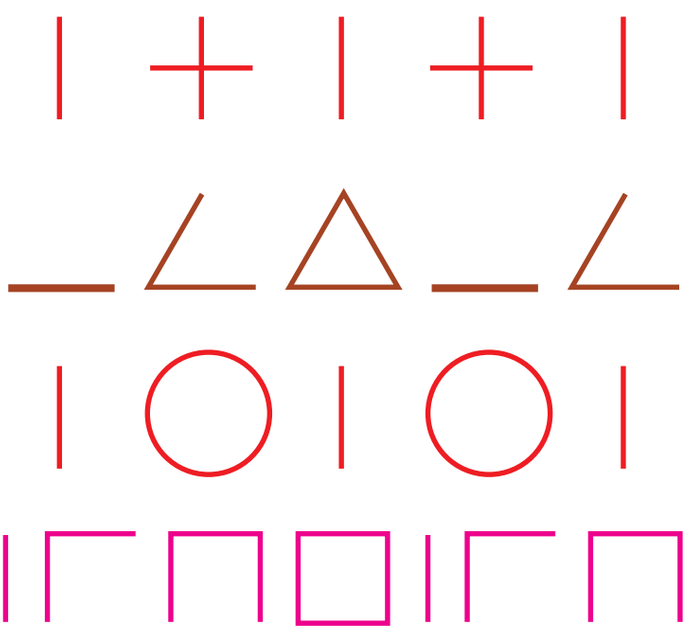


The following images shows some examples of patterns in straight lines.



Practice

Continue the Straight-line patterns.

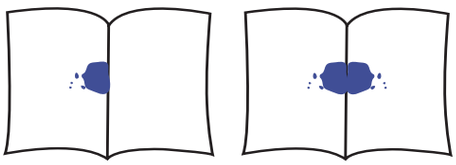


3.2 Symmetry

Symmetries in shapes and patterns.

Do your self

1. Take a piece of paper.
2. Spill few drops of ink on the paper.
3. Now fold the paper and press it.
4. You will get a symmetric figure.

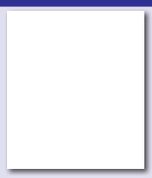


Definition

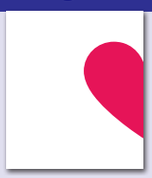
Symmetry means that one shape becomes exactly like another when you move it in the some way: turn, flip or slide.

Let us do

1. Take a sheet of paper and fold it.

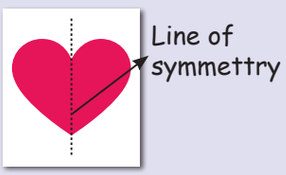


2. Draw any shape at the folded edge of the sheet.



3. Cut the shape

4. Unfold it



Example:

line of symmetry

Note that one half of the shape is exactly like the other half. The line which divides the figure into two exact halves is called ***the line of symmetry***.

The following letters are non symmetric and does not have line of symmetry.

F G J L N P Q R S Z

Try this

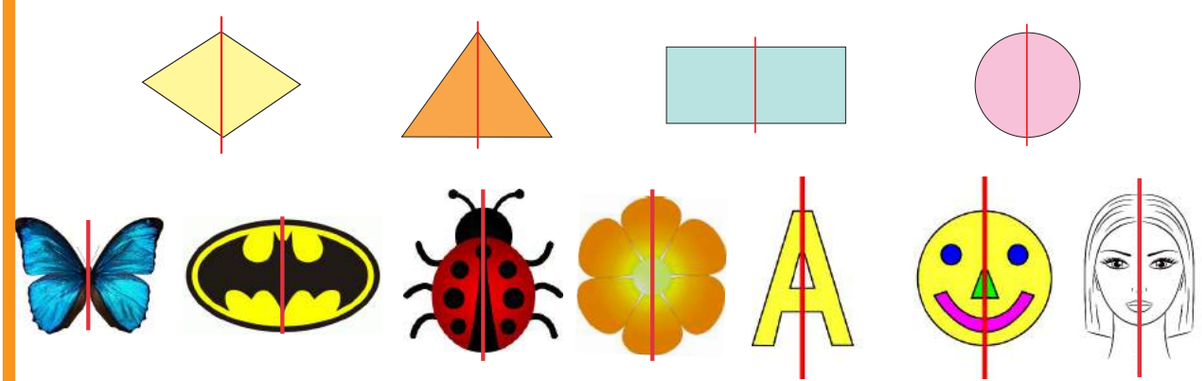
Make the paper cut outs of the shapes shown below with the help of your elders and keep them infront of a mirror and observe the image formed in the mirror. You could see the other half of the image.

Symmetrical shapes

Definition

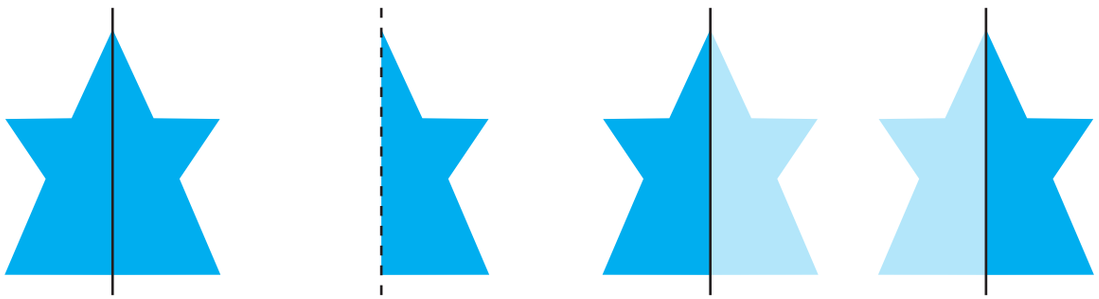
If a shape can be folded or divided into half so that the two halves match exactly then such a shape is called a symmetric shapes.

Example: 1



Example: 2

Line of Symmetry | Folding Line | Mirror Line | Mirror Line



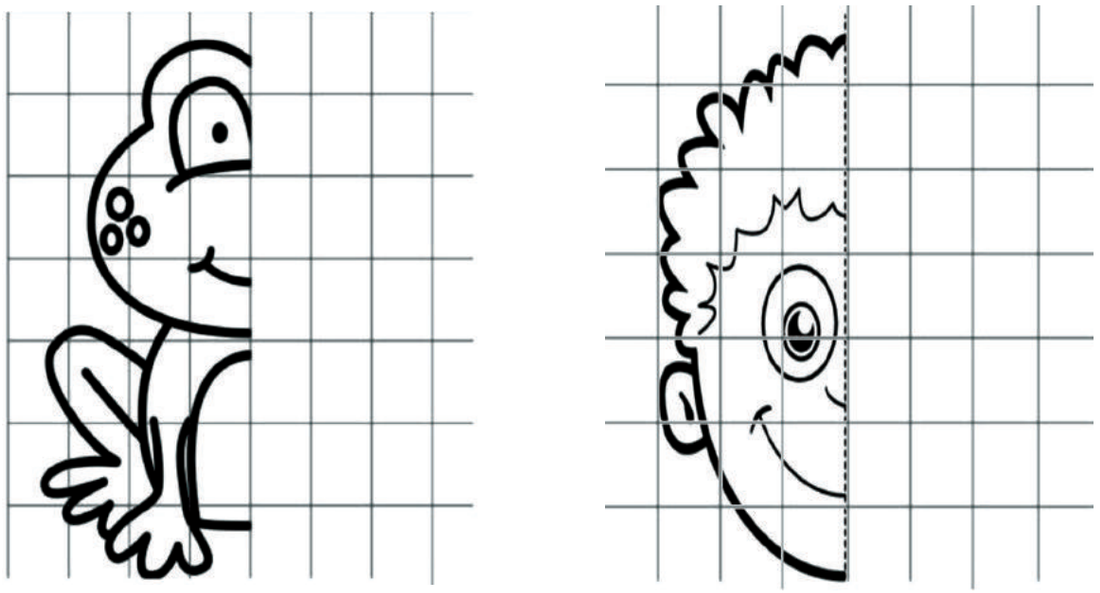
Project:

Collect some symmetrical images from newspapers and magazines and Paste them to make an album.

Teacher's note: Teacher can guide the children to collect the symmetrical images in day-today life.

Activity 5

Complete the symmetrical image



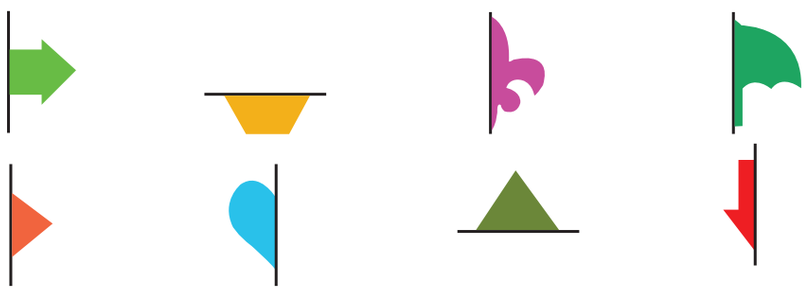
Activity 6

a. Draw the lines of symmetry for the following figures.

b. Circle the non-symmetrical shapes.

Activity 7

Draw the other half from the line of symmetry to make it symmetrical.



Activity 8

Line symmetry is also found in some letters of the alphabet. Complete Write the letters with line symmetry.

43Q1KD