CHAPTER: Patterns

Grade: **2**
Board: **CBSE**
Book: **NCERT**

1.

Chapter Summary and Placement

<Read through the following to understand how this chapter is connected with the previous and next grades and also the important concepts covered in it.>

This chapter encourages the students to recognise and make simple patterns found in sequences of shapes and numbers.

2.

LEARNING OUTCOMES

<On completion of the chapter, students will be able to:>

1. Observe and extend patterns in sequences of shapes.
2. Search for patterns in different sequences of numbers

3. TEACHING PLAN

Follow this section for getting ideas on teaching the content covered in the chapter. The subtopic given in the first column with the matching learning outcome can be explained using instructions and resources listed subsequently

Subtopic and Learning Objective #1

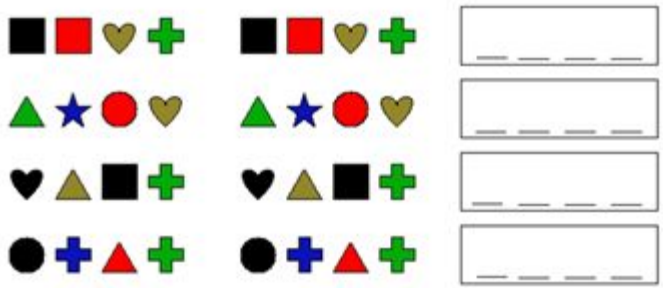
Subtopic: Patterns around us.

LO:
Observe and extend patterns in sequences of shapes

1. To make the student Identify patterns around us.

Teacher Activity

a) Ask the students to look for repetitive patterns on floor tiles, windows, doors, fences, etc.
b) Ask them for more examples of patterns that they have observed around them.
c) Draw simple patterns on board and ask the students to extend them. You can use the following



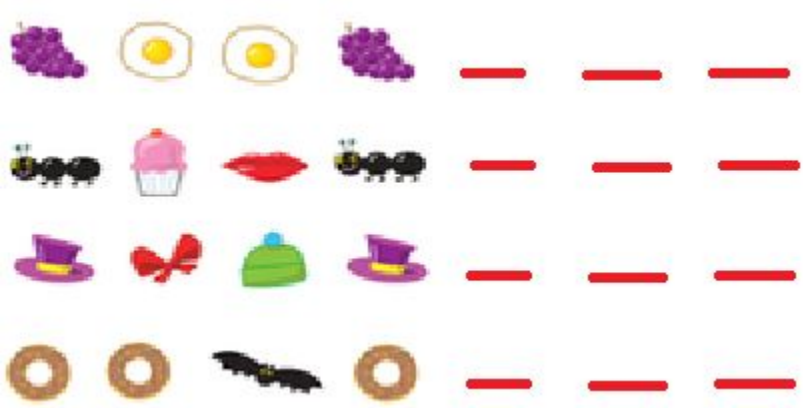
d.) Ask the students to create 5 new patterns using the following shapes:
:



Teacher Activity

Activity 1 can be performed to make the class create patterns with leaves.

Check for understanding:
Extend the sequences:



Activity

Name of the activity- Leaf Patterns
Type of activity – Pairs
Use it for – Creating patterns using leaves
Materials – A sheet of paper, paints, leaves
Procedure:
Instructions to the teacher

1. Divide the students into pairs.
2. Take them out to the school garden.
3. Instruct them to collect a few leaves.
4. Once back in the class, instruct the children to take out the paper and paints and keep them on their desk.
5. Ask the students to discuss with their partners 4 different patterns to make using the leaves collected.
6. Ask them to dip the leaves in paint and start creating the patterns,
7. Display the patterns in the class and have an art exhibition.



Resources Suggested

Text book, crayons, chalk and blackboard

Subtopic and Learning Objective #2

Subtopic: Number patterns

LO:
Search for patterns in different sequences of numbers.

1. To make the student create patterns in sequences of numbers

Teacher Activity

1. Write the following on board:

2, 4, 6, 8…….

2. Ask the students to find the pattern in the above sequence – **by adding 2 to the last term.**
3. Explain that numbers can have interesting patterns.
4. Examine some number patterns and discuss how they are formed.

Examples:

a. 1;4;7;10;13;16;19;22;25;... This pattern is continued by adding 3 to the last term.
b. 3;8;13;18;23;28;33;38;... This pattern is continued by adding 5 to the last term.
c. 97; 87; 77; 67; ….. This pattern is continued by subtracting 10 from the last term.

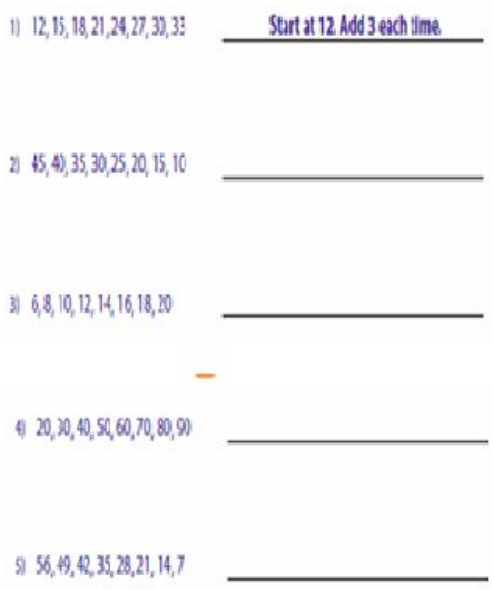
5. Ask the students to extend 6 more places in the number patterns as follows:
    a. Starting from 3 and adding 2 to last term
    b. Starting from 55 and subtracting 5 from last term

Teacher Activity

a. Starting from 21 and adding 7 to the last term.

Check for understanding:

Look at the numbers. Write the rules describing each pattern



Resources Suggested

Text book, crayons, chalk and blackboard

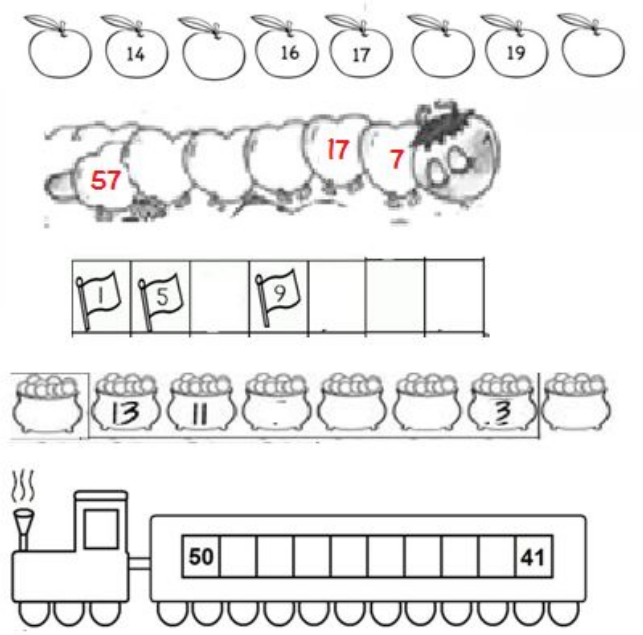
4. WORKSHEETS

Print or copy the worksheet questions on the blackboard and ask the students to attempt them. They can be given as homework or a class test as well.

Worksheet 1

Use it like: test after the chapter is complete, homework

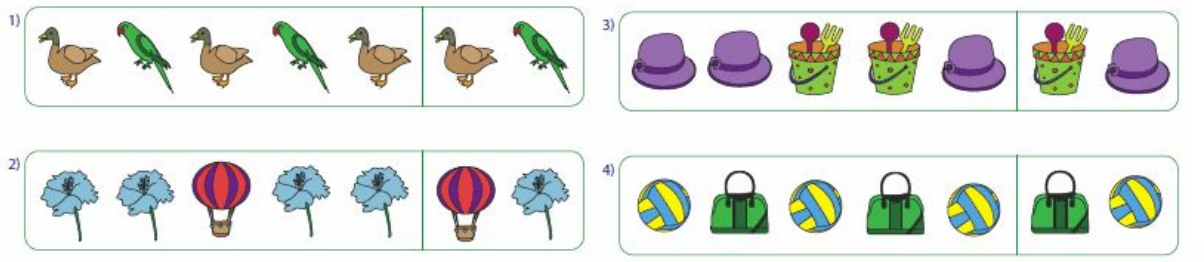
Study the patterns and fill in the blanks:



Worksheet 2

Use it like: test after the chapter is complete, homework

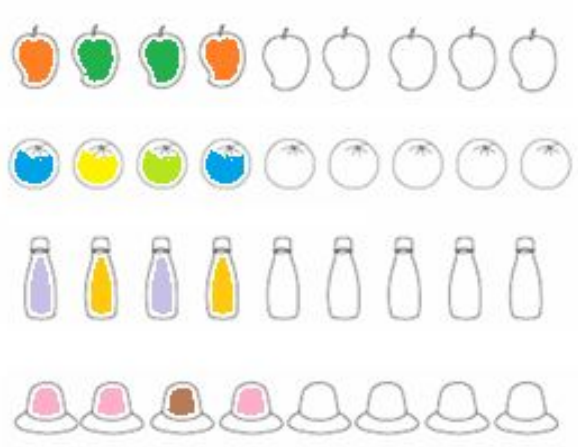
Circle the picture that comes next in the pattern.



Worksheet 3

Use it like: test after the chapter is complete, classwork

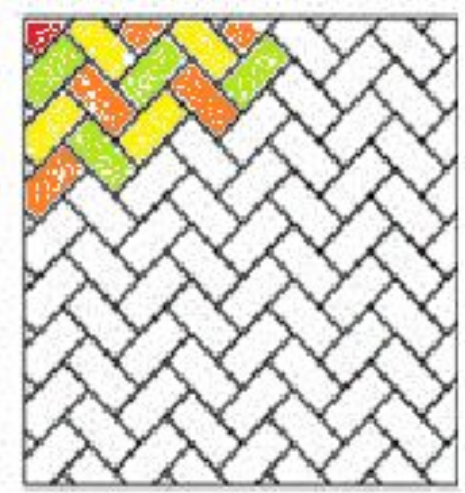
Complete the patterns:



Worksheet 4

Use it like: test after the chapter is complete, homework

Complete the following tiling pattern:



Worksheet 5

Use it like: test after the chapter is complete, classwork

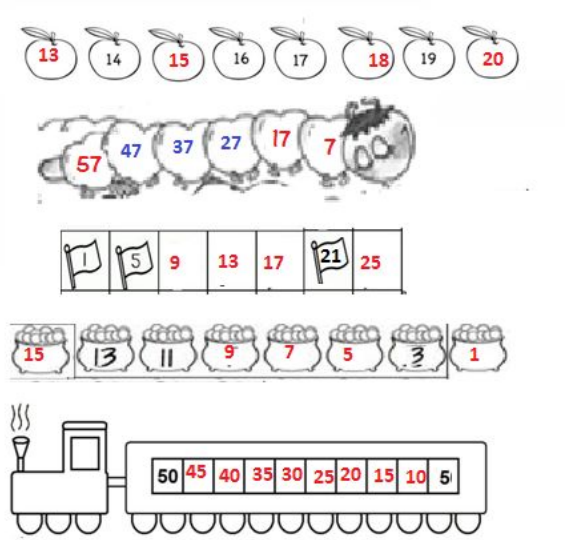
Read and write what comes next.

AAB	BBC	CCD					
AE	BE	CE					
SUN	MOON	SUN					
20F	30G	40H					

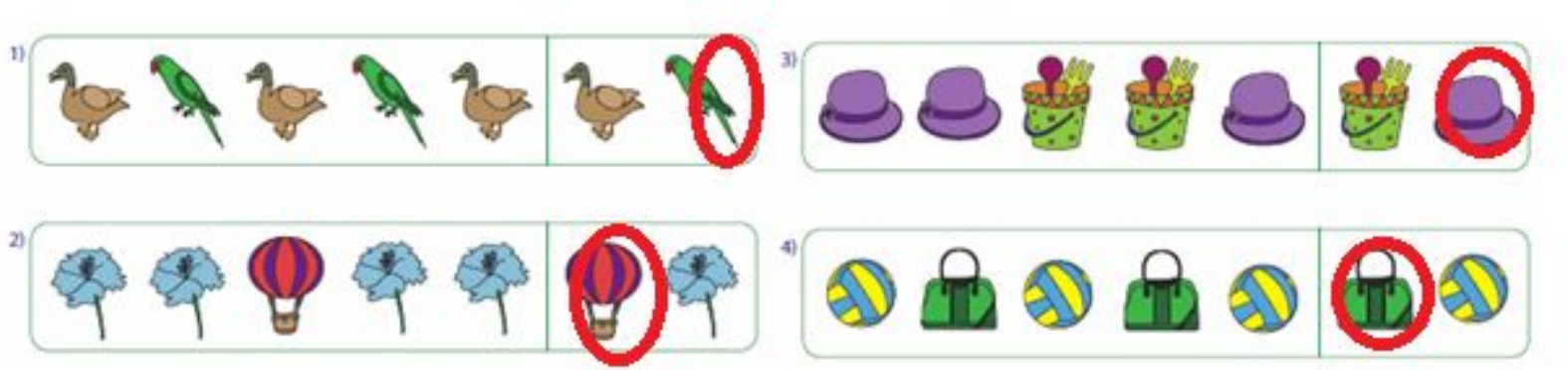
5. SOLUTIONS

This section gives you sample answers for activities and questions listed above.

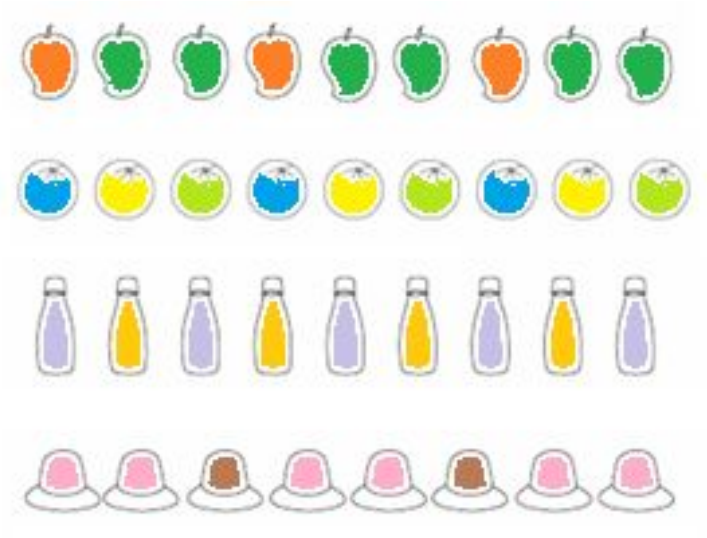
Worksheet 1


13 14 15 16 17 18 19 20
57 47 37 27 17 7
1 5 9 13 17 21 25
15 13 11 9 7 5 3 1
50 45 40 35 30 25 20 15 10 5

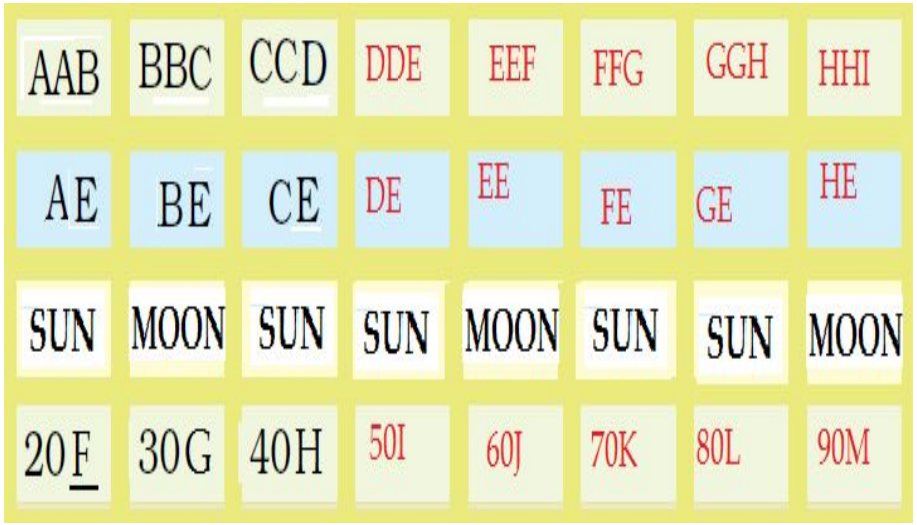
Worksheet 2



Worksheet 3



Worksheet 5


AAB BBC CCD DDE EEF FFG GGH HHI
AE BE CE DE EE FE GE HE
SUN MOON SUN SUN MOON SUN SUN MOON
20F 30G 40H 50I 60J 70K 80L 90M

6. EXTRA RESOURCES

Carry out the following suggested activities/ tasks if you have the time and resources to do them

Teacher can use these videos if time and facilities permit:

1. https://www.youtube.com/watch?v=UuAYp6O8GwU Patterns everywhere
2. https://www.youtube.com/watch?v=aBDubv-eyQk Ladyfinger patterns
3. https://www.youtube.com/watch?v=-NdzJg3moRY Patterns song