



G3.60 | REPEATED UNITS IN A GEOMETRIC PATTERN

Geometry & Measurement Concepts - NCERT Chapter 5: Shapes and Designs

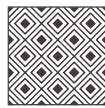
Students will be able to identify repeated units in a geometric pattern and explain features of the unit

40- 50 min

PRE REQUISITES:

G3.58 Know how to make geometric patterns using a dot grid

TLM



Four handkerchiefs with different patterns

MISCONCEPTIONS

None

KEY VOCABULARY

None

PLAY



Repeating shapes in designs

○ Show 4 different handkerchiefs/ saree patterns to the students

○ Ensure that at least one of them has a repeating pattern. Ask the students to describe the designs

○ Encourage the students to use the vocabulary of “straight line”, “curved line”, and names of common 2-D geometric shapes

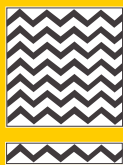
QUESTION: Does any of these handkerchiefs have a shape that is repeated over and over again?

○ Ask the students to draw a handkerchief design of their choice which using only triangles only

QUESTION

Where else have you seen such patterns? Does your school uniform have any pattern?

PROCESS



Understanding straight and curved repeating shapes in different patterns

○ Draw a pattern using zig-zag lines as shown. Point out that all the lines of the pattern are identical

○ Draw a zig-zag line below the pattern. Tell that its made of many such lines arranged at equal distance from each other

○ Draw a pattern using rectangles in 2 different orientations. Point out that the pattern is made up of rectangles

○ Some of the rectangles are tilted to the left & some are tilted to the right

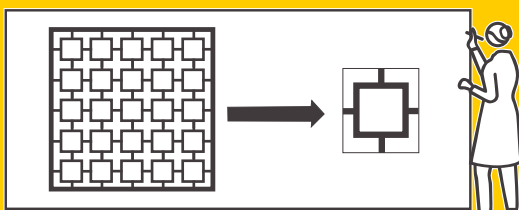
○ Draw a rectangle & tell the students that it is the repeating shape that makes up the pattern

○ Tell the students that both the patterns shown have only straight lines. Tell that patterns can also have curved lines

○ Draw a bunch of 6 flower petals & tell students that the shape has curved lines. Draw a pattern using the shape as shown

○ Emphasize that you are using the same shape over & over again in different orientations

PRACTICE

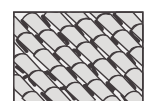


Draw the pattern & ask the students to identify the repeating shape

○ Help the students solve question 3 from the worksheet. Ask the students to look at the given pattern & draw the shape that is repeated in the pattern

○ Encourage the students to note that squares & the lines connecting the squares together make a repeating unit

○ Help the students solve question 4 from the worksheet. Ask the students to look at the pattern & describe the repeating shape in the pattern



○ Explain that a shape can have straight as well as curved lines



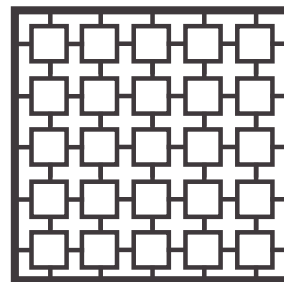
G3.60 | PATTERNS IN GEOMETRIC SHAPES

WORKSHEET: GEOMETRY & MEASUREMENT CONCEPTS - NCERT CHAPTER 5: SHAPES AND DESIGNS

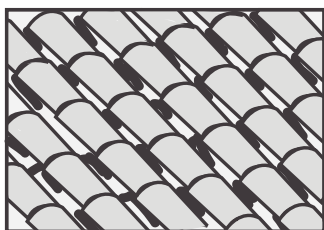
- ① SOLVED EXAMPLE : Look at the patterns below & circle the repeating shape in the pattern. Tell if the shape has straight lines or curved lines:

S.No.	Pattern	Unit shape	Straight/ Curved
1.			Straight
2.			Curved
3.			

- ② Identify the repeating shape in this pattern & draw it



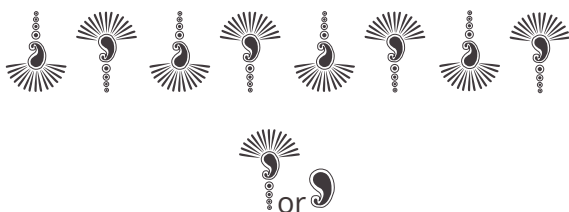
- ③ Circle the patterns that have straight lines & curved lines



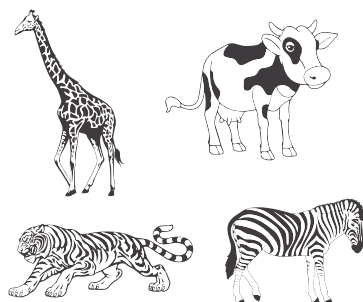
- ④ This shirt has a pattern of squares. Draw a pair of pants that have the same pattern as this shirt.



- ⑤ Look at the pattern carefully & tick mark the correct repeating shape for this pattern



- ⑥ Which of these animals have stripes as their pattern



A butterfly is shown here with a beautiful pattern on it. Observe & draw any two more creatures with a pattern on their bodies:

