



SYNA INTERNATIONAL SCHOOL, KATNI
SUMMER ASSIGNMENT (2026-27)
GRADE-IX

ENGLISH

Theme: Area and Perimeter

Chapter : The Pot Maker

Make a comprehensive report on 'Dying Art in India.' support your project with relevant pictures, sketches & drawings. Include facts (Ex. a short interview with an artist) related to preserving arts and highlighting the deep connection between tradition and pottery with a special reference to its importance with 'Chatth Puja.'

Use A4 size sheets and present it with an attractive cover page.

HINDI

'मैं और मेरे देश की भौगोलिक सीमाएं' विषय पर लगभग 200 शब्दों में अनुच्छेद तैयार करिए।

MATHEMATICS

1. Activities done in Lab Manual:

1.To carry out the following paper folding activities: Finding –

- (i) the mid point of a line segment,
- (ii) the perpendicular bisector of a line segment,
- (iv) the perpendicular to a line from a point given outside it,
- (v) the perpendicular to a line at a point given on the line.

2.To show that the area of a parallelogram is product of its base and height, using paper cutting and pasting. (Ordinary parallelogram and slanted parallelogram)

3.To show that the area of a triangle is half the product of its base and height using paper

4.To show that the area of a rhombus is half the product of its diagonals using paper cutting and pasting.

5.To show that the area of a trapezium is equal to half the product of its altitude and the sum of its parallel sides and its height, using paper cutting and pasting.

6.To divide a given strip of paper into a specified number of equal parts using a ruled graph paper.

7.To obtain mirror images of figures with respect to a given line on a graph paper.

2. Activities done in Graph Notebook:

1.The top of a table is hexagonal in shape.

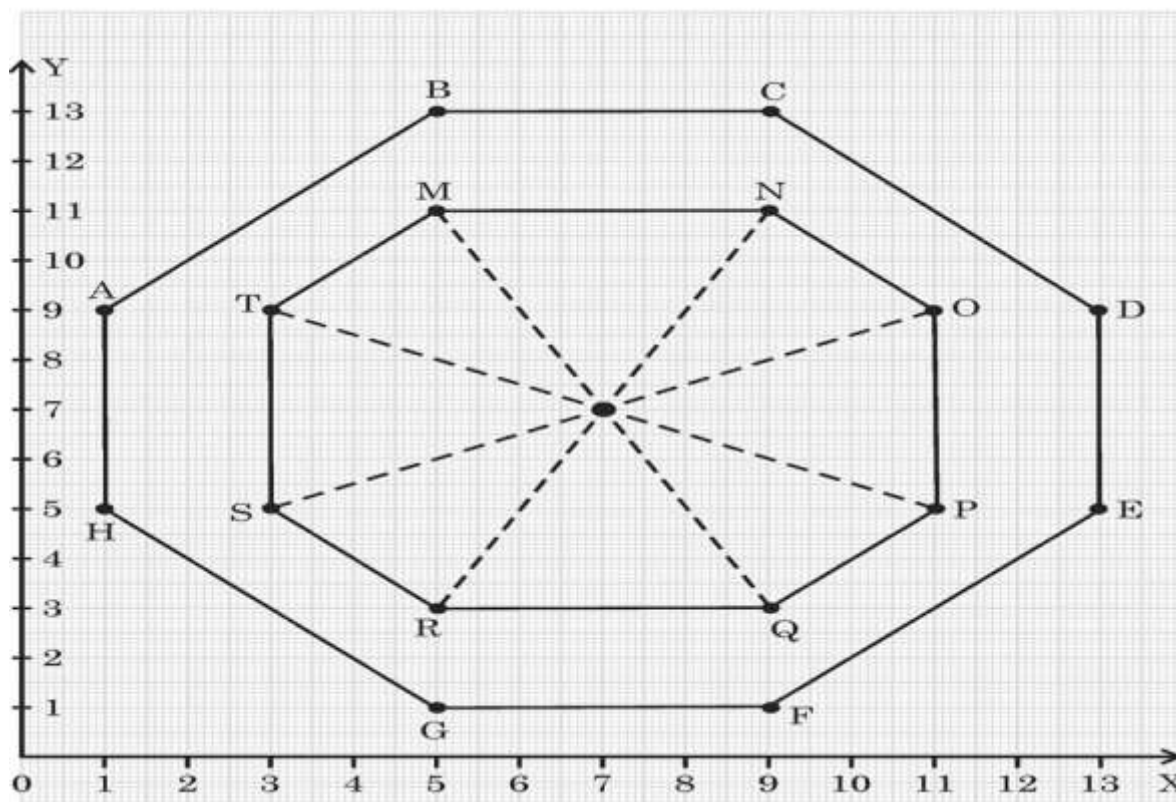
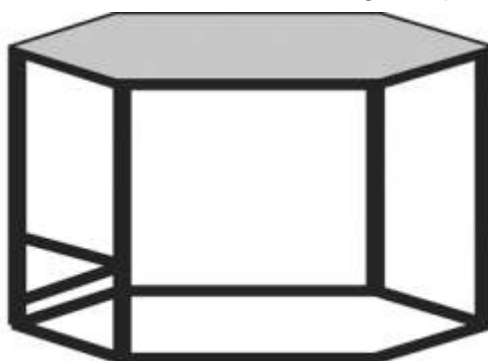
On the basis of the information given above, answer the following questions :

(i) Write the coordinates of A, B, C, D, E, F, G, H, M, N, O, P, Q, R, S and T.

(ii) Write the coordinates of the mid-point of line segment joining C and D.

(iii) Find the distance between M and Q.

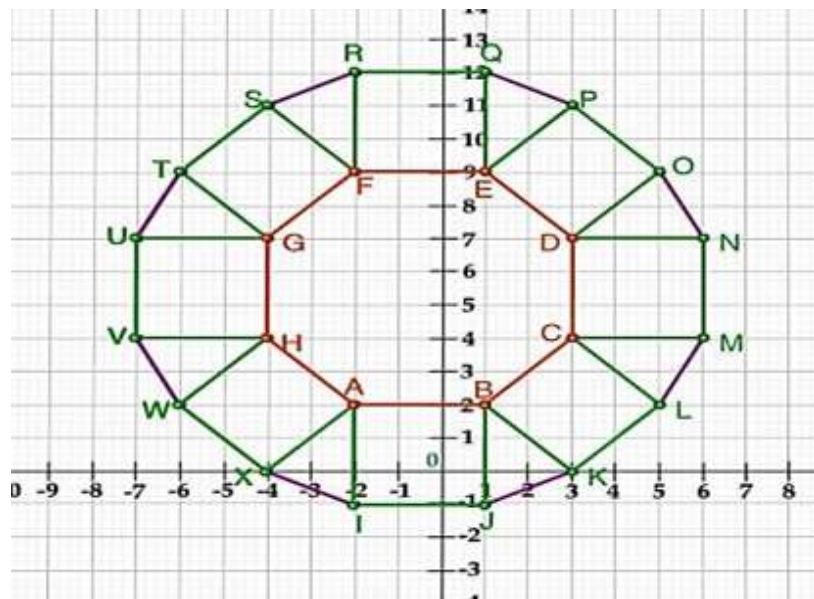
2. A tiling or tessellation of a flat surface is the covering of a plane using one or more



geometric shapes, called tiles, with no overlaps and no gaps. Historically, tessellations were used in ancient Rome and in Islamic art. You may find tessellation patterns on

doors, walls, paintings etc. shown below is a tiled floor in the archaeological museum of Seville, made using squares, triangles and hexagons. A craftsman thought of making a floor pattern after being inspired by the above design. To ensure accuracy in his work, he made the pattern on the Cartesian plane. He used regular octagons, squares and triangles for his floor tessellation pattern. Use the above figure to answer the questions that follow:

- (i) Find all coordinates of points.
- (ii) What is the length of the line segment joining points B and F?
- (iii) What is the area of Trapezium AFGH, ABCH, HCGD, DCMN?



SCIENCE

Working Model (Compulsory)

Make a Model: “Smart Construction System using Simple Machines”

Choose any ONE:

Inclined Plane Model (Ramp)

Pulley System (Lifting Load)

Lever (Seesaw / Crowbar concept)

Explain: through flash cards in model with bold headings and explanation

1.Type of machine used

2.Work done = Force × Distance

3.How design (shape/size) affects

SOCIALSCIENCE

Students have to prepare a neat and attractive project file on the chapter “Shaping the Earth” covering the following points:

1. Introduction

Write a short note on:

- What is meant by “Shaping the Earth”
 - Internal and External forces of the Earth
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2. Major Landforms

Explain with diagrams:

- Mountains
- Plateaus
- Plains
- Valleys
- Deserts

(Write 4–5 lines for each)

3. Internal Forces

Write about:

- Volcanoes
- Earthquakes
- Fold Mountains
- Block Mountains

(Add labelled diagrams)

4. External Forces

Explain:

- Weathering
- Erosion
- Deposition

Agents of erosion:

- River
 - Wind
 - Glacier
 - Sea waves
-

5. Case Study

Write a short case study on any one:

- Himalayan Mountains formation
- Volcano eruption
- Famous Earthquake in India
- River Valley formation