

Pre-Content/Content Post-Content	Learning Outcomes/Objectives	
	General	Specific
<u>PRE-CONTENT</u> - Introduction to plane figures and solid shapes <u>CONTENT</u> - Faces, Edges and Vertices - Nets for building 3-D shapes. - Drawing solids on a flat surface- a) Oblique sketches b) Isometric sketches <u>POST-CONTENT</u> - Viewing different sections of a solid - Viewing different views of a solid	Students will be able to ✓ draw, name and recognise different plane figures and solid shapes ✓ visualise the faces, edges and vertices of different solid shapes ✓ build the nets of different solid shapes and visualise the shape ✓ create the Oblique & Isometric sketches of different solids ✓ visualise different sections of a solid and create different views of a solid	Students will be able to ✓ draw and name different plane figures ✓ recognize different solid shapes ✓ visualise different solid shapes ✓ identify faces, edges and vertices of the same ✓ build the nets of different solid shapes ✓ visualise the shapes ✓ create the Oblique & Isometric sketches of different solids ✓ visualise different sections of a solid ✓ visualise and create different views of a solid

Home Work /Assignments:

1. NCERT Exercise/solved examples given as home task.
2. Extra questions from the help book.

Teacher's Activity	Student's Activity	Teacher's observation and Remedial
Teacher will ask them to create plane figures using geoboards and rubber bands in maths lab. show them different solid shapes and ask them to identify the shapes. help them to create nets of different solids by doing an activity in the maths lab. Annexure 15 create Oblique sketches on the graph paper and Isometric sketches on the isometric dot paper. ask them to make clay models of different solids and make vertical and horizontal cuts to identify the sections of a solid.	Students will create and name all the plane figures. identify the solid shapes and give examples of the same from their surroundings and draw them also. follow the instructions to perform the activity as per the given instructions and write their observations and also visualise the same nets to know number of faces, vertices and edges of the solids. Annexure 15 follow the instructions to create Oblique and Isometric sketches of 3-D shapes and visualise them on a flat surface. make clay models and identify the sections by making vertical and horizontal cuts and draw different views of a solid using graph paper.	Teacher will write his/her observations after the completion of the topic.

Teaching Aids: Smart board, ICR.

Methodology/Innovative Methods: Discussion, Brain storming and Activity Oriented.

Interdisciplinary Links: Linked with Real life.

Relation with art: 2D and 3D shapes are used in architectural designs.

HOD

Coordinator

Vice-Principal

Principal

Subject	MATHEMATICS
Class	VII
Chapter/Unit	Visualising Solid Shapes
Topic	Making Nets
Time	20 minutes
Nature of Activity	Individual

What will I learn (Learning outcome)?

Creating net of 3 Dimensional shapes.

Skills: - Creating, Precision, Accuracy

What I have to do?

To create a net of a cuboid.

What do I require?

Empty match box, cardboard, cello-tape and Pencil box.

What do I need to know?

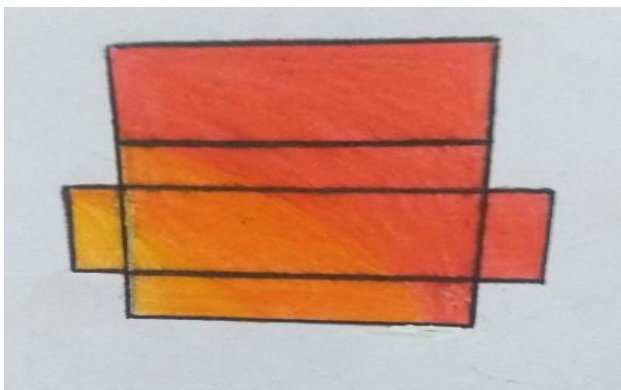
Knowledge about 2 Dimensional and 3 Dimensional Shapes.

Teacher's Activity

Teacher will discuss about 2 Dimensional and 3 Dimensional shapes and their differences.

How will I proceed?**Student's Activity**

- Take an empty match box and open the folds of the matchbox and flatten it out.
- Paste it on the cardboard and draw its boundary as well as lines along the folds and colour it as shown in the figure below.



What have I observed?

SL.No.	OBJECT	NUMBER OF FACES	NUMBER OF VERTICES	NUMBER OF EDGES
1.	Matchbox			
2.	Brick			
3.	Sweet box			

What have I learnt?

To create net of three _____ shapes.

What am I curious to know?

Repeat the above activity to get the net of a cube.

Let me evaluate myself

1. At what point the three concurrent edges of a cuboid meet?

_____.

2. How many dimension(s) does a cuboid have?

_____.

3. How any rectangles are there in a net of a cuboid?

_____.

4. Why are solid shapes also called 3 D shapes?

_____.

5. Make a cuboid of length 4 cm, breadth 3 cm and height 2 cm.