



पुना International School

Shree Swaminarayan Gurukul, Zundal

Class -IV

MATH-MAGIC

Year- 2020-21



CH-1

Building with Bricks

• Summary:

- What is called pattern?
- Geometrical shapes – 2D, 3D shapes
- How to draw a Brick and its different faces, corners, sides, edges?
- Draw the table and write sides, corners, edges, faces of given name of shapes.
- Which kind of wall will not fall? why?
- Draw the different kind of Bricks' wall pattern.
- Find out the price of a Brick / Bricks.
- Given the table below, fill the blanks in table.
- Activity



- **What is called pattern?**

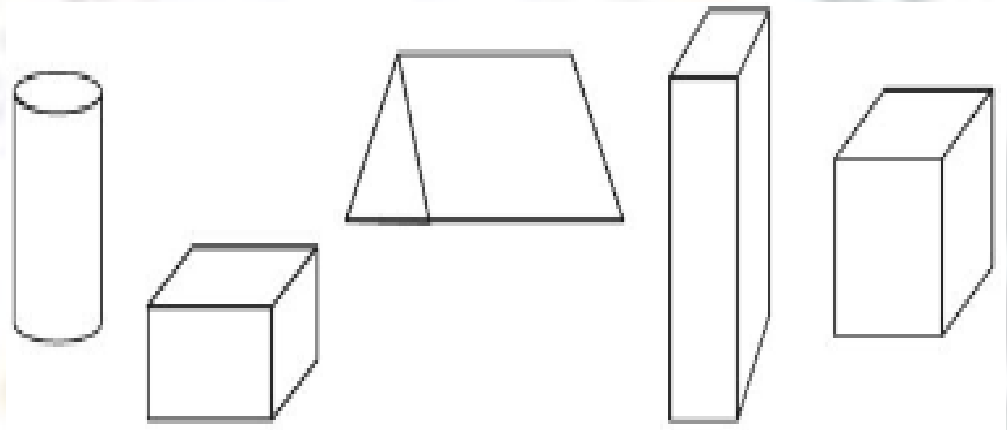
- Patterns are shapes, designs, groups of numbers that repeat themselves in a predictable manner.

- **Geometrical shapes – 2D, 3D shapes**

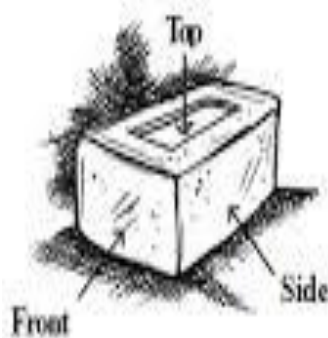
- A square, triangle, and circle are all examples of a 2D shape. However, a three-dimensional, such as length, width, and height. One example of a 3D shape is a rectangular prism, which is made up of four rectangles and two squares.

- **Draw the difference shapes in 2D and 3D.**

- Circle
- Triangle
- Cuboid
- Sphere
- Rectangle
- Cube
- Dice



- **How to draw a Brick and its different faces, corners, sides, edges?**



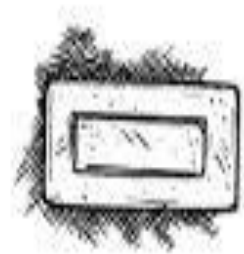
A brick



Front view



Side view



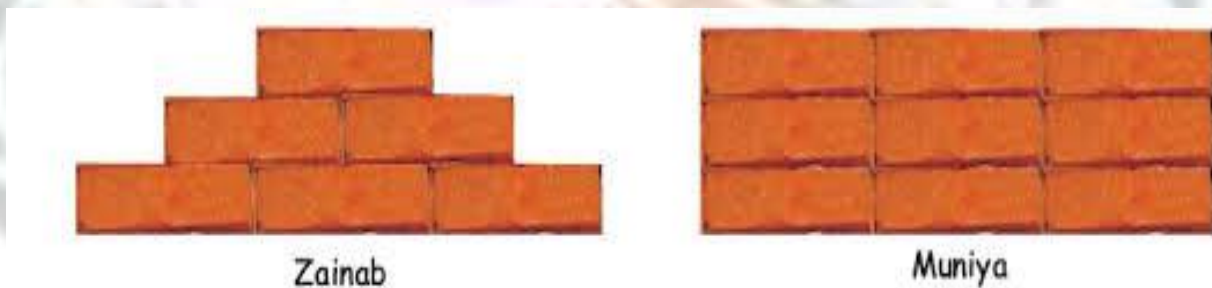
Top view

- Draw the table and write sides, corners, edges, faces of given name of shapes.

Sr no	Shapes	Corners	Sides	Edges	Faces
1	Rectangle	4	4	4	1
2	Square	4	4	4	1
3	Triangle	3	3	3	1
4	Cuboid	8	6	12	6
5	Cube	8	6	12	6
6	Brick	8	6	12	6
7	Cylinder	0	0	0	2
8	Circle	0	0	0	1
9	Sphere	0	0	0	0

- Which kind of wall will not fall? why?

- One day Zainab and Muniya are playing with bricks and making their walls. Each makes a different wall.



- Zainab says her wall will not fall easily, Masons too do not put bricks one on top of the other, as Munia has done.
- What do you think? Which wall will be stronger? **Zainab's wall**

- YouTube Video link for Types of bricks, patterns of bricks and different types of bridges

<https://youtu.be/Qf51iXA0k3w>

- Draw the different kind of Bricks' wall pattern.

- 'Jaali'

The Masons who built School has also made different types of 'jaali' patterns on the walls.

Also, in Kerala a library building walls made with 'jalli' pattern.



- Triangle

The triangle pattern used to make boundary surrounding trees, plants etc...

Triangle shapes also used in library in Kerala which made with triangle patterns of bricks.

Have you seen bricks that look like triangles? Look at the bricks around the tree in this photo.



Do you see the **arch** in this photo?

This is from a school in Faizabad.

- An Arch

This type of pattern used to make a design in windows, also makes bridges over river or canal that time uses a special arch. We can see arches in rainbow, bridge, tunnel etc

In Orchha, Ghonghat wali Mehraab building made arch with a veil.



- Find out the price of a Brick / Bricks.

- **Unitary Method**

- Finding out the value of one from many and then the value of many from the one is called unitary method.

1. If a Brick cost Rs. 1 then the cost of 500 bricks will be **Rs. 500.**

$$\begin{array}{l}
 \text{a 1 brick cost} \quad \quad \quad \Rightarrow \text{Rs.1} \\
 \text{therefore, 500 bricks cost} \quad \Rightarrow \text{Rs. (?)} \\
 \quad \quad \quad \quad \quad \quad \quad = 500 \times \text{Rs.1} = \mathbf{500\text{rs}}
 \end{array}$$

2. If the cost of a brick is Rs. 2 then the cost of 1000 bricks are _____.
3. If the cost of a brick Rs. 5 then the cost of 2000 bricks are _____.
4. If the cost of 2000 bricks are Rs. 8000 then the cost of 1 brick is _____.
5. If the cost of 6000 bricks are Rs. 3000 then the cost of 1 brick is _____.

- Given the table below, fill the blanks in table.

Sr no	No of Bricks	Cost of bricks	No of Bricks	Cost of bricks
1	1000	Rs. 6000	500	Rs. 3000
2	2000	Rs. 18000	1000	Rs. 9000
3	6000	Rs. 30000		
4	8000	Rs. 24000		
5	10000	Rs. 30000		

- **YouTube video link for Explanation of Unitary method**

<https://youtu.be/6BTBlqs8NUY>

- **Activity**

- Make the chart paper and draw the picture chart of kiln where bricks are made.

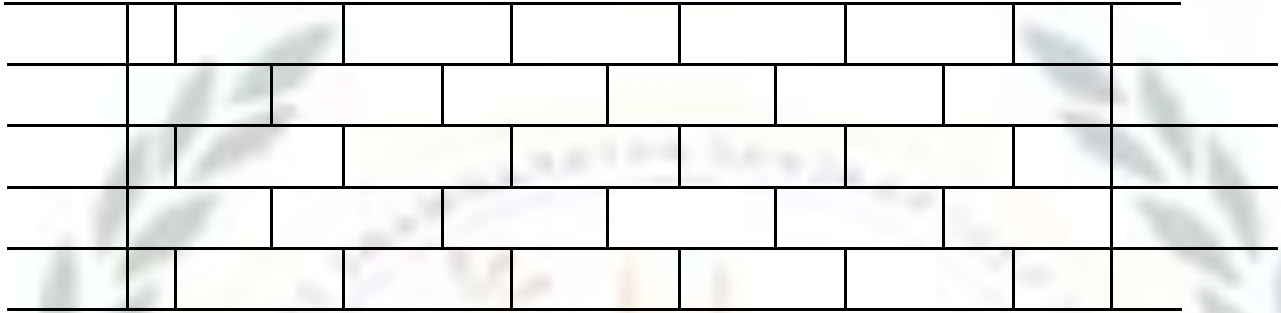
EXERCISE CORNER

Q.1. A brick has _____ faces.

Q.2. One brick cost 15/- then,

20 bricks cost

Q.3. In the given wall how many bricks are used?



Q.4. A contractor pays 5000/- for 500 bricks. Find out the cost of 1 brick? _____

Q.5. A brick has more than six corners. (Yes/No)

Q.6. Bricks are made from? Tick the correct answer?

Stone

Soil

Wood

Glass

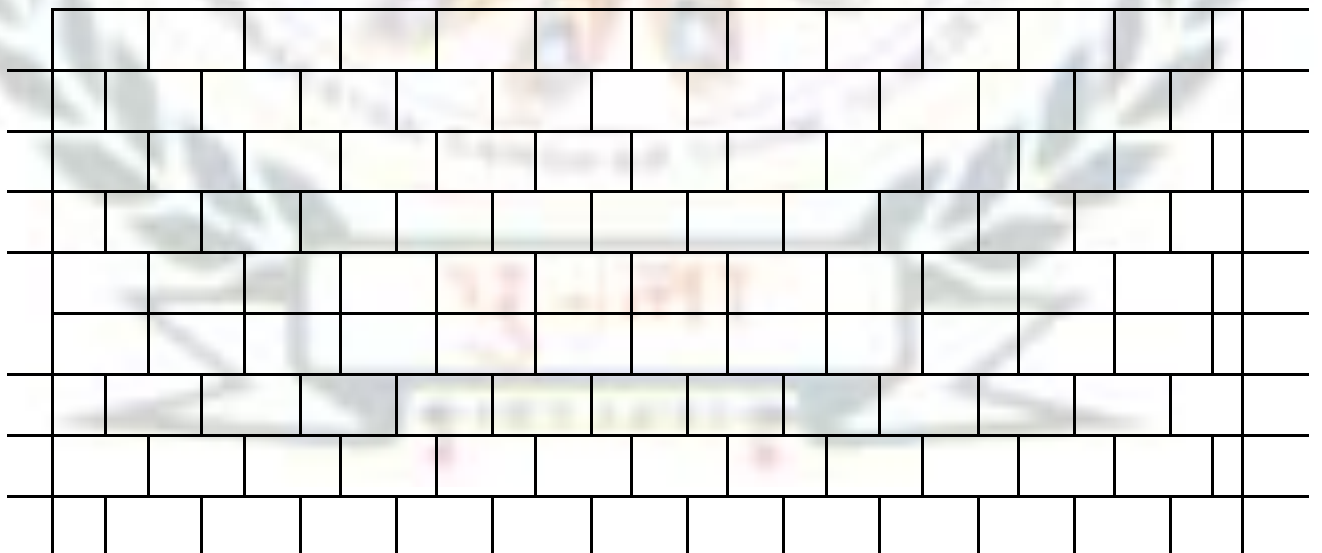
A

B

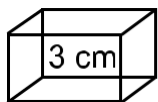
C

D

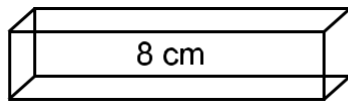
Q.7. Make a Jaali/Jharokha pattern on the wall and colour it.



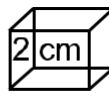
Q.8. Circle the longest brick.



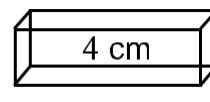
A



B



C



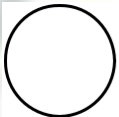
D

Q.9. A truck can carry 5000 bricks. How many trucks we need to carry 1,00,000 bricks?

Q.10. One hundred thousand bricks = 1 _____ bricks.

Q.11. Draw a wall of 12 cm × 12 cm.

Q.12. Which of these are the faces of a brick which is used for wall construction? Make the round on it.



Q.13. Draw two floor patterns made of brick.



Q.14. If a brick costs ` 5/-, then what is the cost of 350 bricks?

Q.15. Wall is not made from (Tick the correct answer)

Brick

Wood

Water

Iron

A

B

C

D