पुणा International School
Shree Swaminarayan Gurukul, Zundal

Grade – IV
Maths
Specimen copy
Year 21-22

CH-1

Building with Bricks

❖ Summary:

- **What is called pattern?**
- **Geometrical shapes – 2D, 3D shapes**
- **Draw the difference shapes in 2D and 3D**
- **See the different views of a brick: (Front, Side and Top view).**
- **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?**

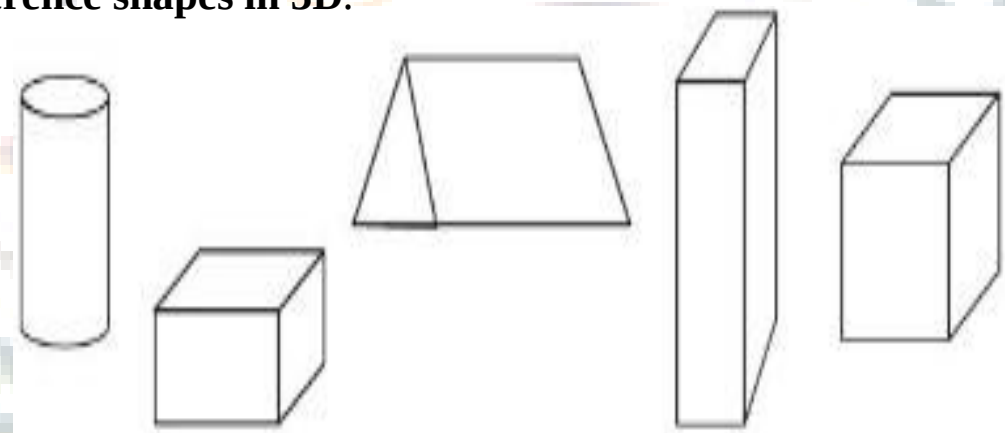
- Patterns are shapes, designs, groups of numbers that repeat themselves in a predictable manner.

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

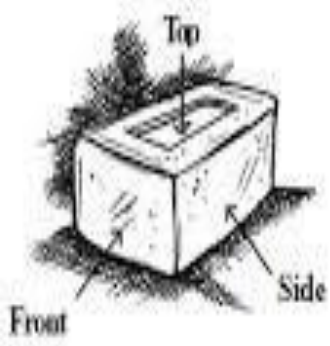
- 2 - D Shape- A two-dimensional shape is a shape that has length and width. The plane figures that can be drawn on a flat (or plane) surface or a piece of paper.A square, triangle, and circle are all examples of a 2D shape. However,
- 3 - D Shape- A three-dimensional shape can be defined as a solid figure or an object or shape that has three dimensions – 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 3D**.

- Triangle
- Cuboid
- Rectangle
- Cube
- Dice



- **See the different views of a brick: (Front, Side and Top view)**



A brick

Front view

Side view

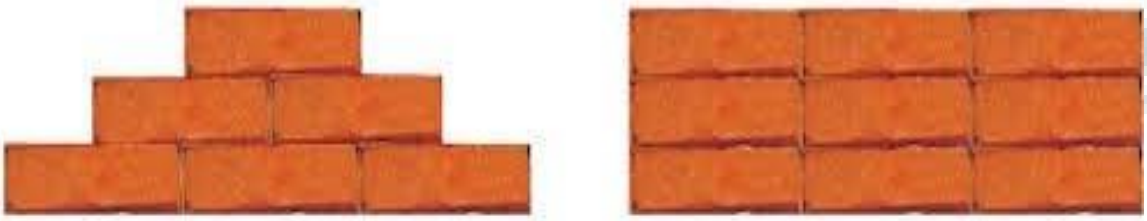
Top view

- **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 Muniya

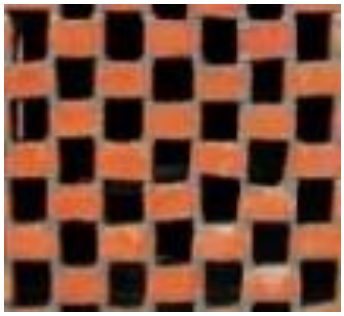
- Zainab says her wall will not fall easily, Masons too do not put bricks one on top of the other, as Munia has done.
- What do you think? Which wall will be stronger? **<u>Zainab's wall</u>**
-

- **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 'jaali' 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 cannel that time uses a special arch. We can see arches in rainbow, bridge, tunnel etc

  In Orchha, Ghoonghat waali 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**.

   a 1 brick cost = Rs.1

   therefore, 500 bricks cost = Rs. (?)

   = 500 x Rs.1 = **500 Rs**

2. If the cost of a brick is Rs. 2 then the cost of 1000 bricks are **Rs. 2000**.
3. If the cost of a brick Rs. 5 then the cost of 2000 bricks are **Rs. 10,000**.
4. If the cost of 2000 bricks are Rs. 8000 then the cost of 1 brick is **Rs. 4.**
5. If the cost of 6000 bricks are Rs. 3000 then the cost of 1 brick is **Rs. 2**.

- **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	2000	Rs. 10000
4	8000	Rs. 24000	3000	Rs. 9000
5	10000	Rs. 30000	4000	Rs. 12000

- **Activity**

- Make the chart paper and draw the picture chart of bricks, how it made.

A

B

D

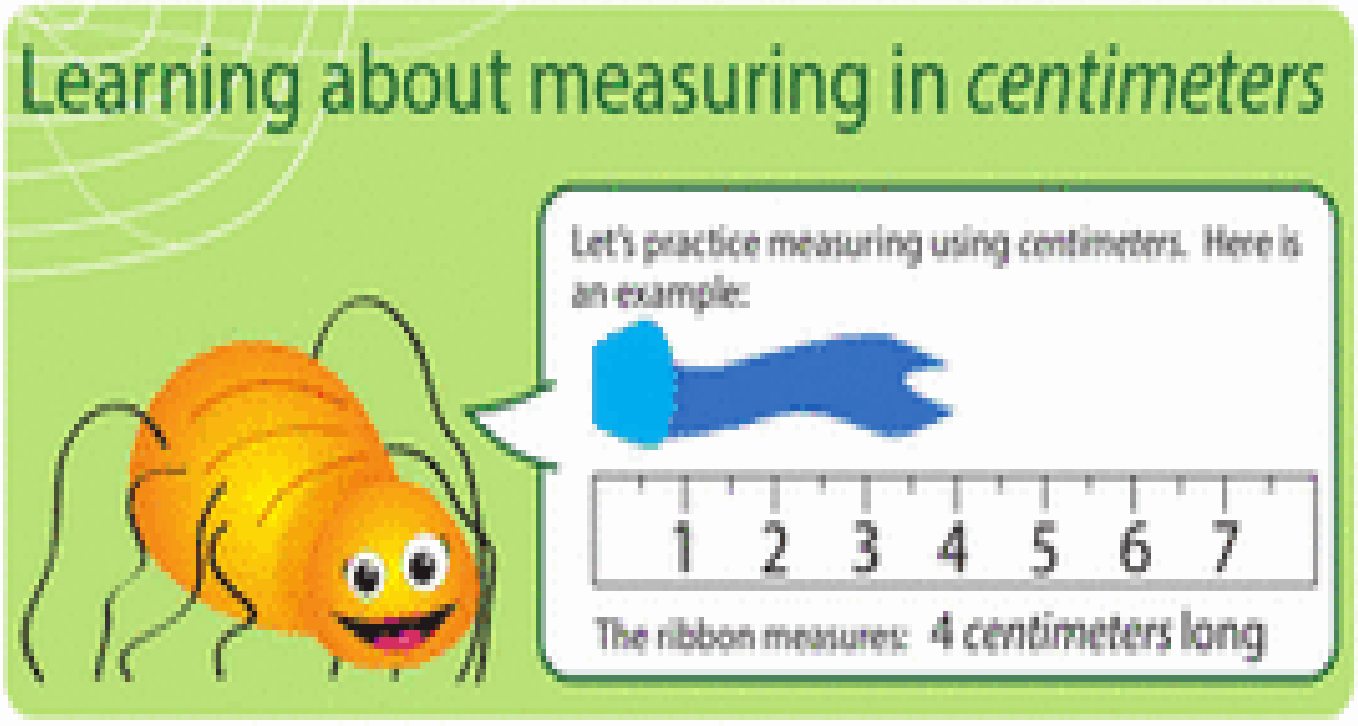
C

CH-2

Long and short

Summary

- Introduction - Measurement of length
- Convert kilometre into metre
- Convert metre into kilometre
- Convert the metre and centimetre into metre.
- Addition the following.
- Subtraction the following.
- Word problem.
- Complete the table and answer the questions below.
- Read the following table and answer the following question.
- Activity



- **Measurement of length**

  Measurement of something from its one end to the other is called its length. The standard unit of length is meter. We use different units to measure different length. Millimetre, centimetre and kilometre.

  Metre is used to measure average distance.

  Kilometre used to measure long distance.

  1 metre = 100 centimetres

  1 kilometre = 1000 metres

Which is a better unit to measure these? (cm, m or km)

a. Length of a pin – **cm**

b. Height of a house – **m**

c. Distance the scooter travels – **km**

d. Height of your pet – **cm**

e. Distance from Bangalore to Rajasthan – **km**

f. Thickness of your lunch box – **cm**

g. Height of Qutub Minar – **m**

h. Distance from Bangalore to Rajasthan – **km**

i. Height of Qutub Minar – **m**

- **Convert kilometre into metre:**

1. 4 km = 4 x 1000m = 4000m.

2. 12 km = 12 x 1000m = 12000m.

3. 3 km = 3 x 1000m = 3000m.

4. 10 km = 10 x 1000m = 10000m.

5. Example: 9 km 236 m
   = 9 x 1000 m + 236 m
   = 9000 m + 236 m
   = 9236 m.

6. 7 km 205m = 7 x 1000 m + 205 m
   = 7000 m + 205 m
   = 7205 m.

7. 12km 60m = 12 x 1000m + 60 m
   = 12000 m + 6 m
   = 12060 m.

8. 19km 215m = 19 x 1000 m + 215 m
   = 19000 m + 215 m
   = 19215 m.

9. 16km 115m = 16 x 1000m + 115 m
   = 16000 m + 115 m
   = 16115m.

- **Convert metre into kilometre:**

1. 2000m = 2000 ÷ 1000
   = 2.000km
   = 2 km

2. 4000m = 4000 ÷ 1000

= 4.000 km

= 4 km

3. 12300m = 12300 ÷ 1000 = 12.300 km

4. 6450m = 6450 ÷ 1000 = 6.450km

- **Convert the metre and centimetre into metre.**

Example: 526cm = 526 ÷ 100

= 5.26m.

1. 327 cm = 327 ÷ 100 = 3.27
2. 951 cm = 951 ÷ 100 = 9.51
3. 702 cm = 702 ÷ 100 = 7.02
4. 864 cm = 864 ÷ 100 = 8.64

- **Addition the following:**

Step1: Write the units on the top.

Step2: Write the numbers in proper place below the units.

Write zero in empty place.

Example: 1. Add 45km 34m and 34km 5m

	km	m
	45	034
+	34	005
	79	039

2. Add 21km 1m + 31km 7m

	km	m
	2 1	0 0 1
+	3 1	0 0 7
	5 2	0 0 8

3. Add 51km 605m + 12 km 787m

	1	1
	Km	m
	5 1	6 0 5
+	1 2	7 8 7
	6 4	3 9 2

- **Subtract the following:**
- Example: Subtract 15km 30m from 35km 45m

	km	m
	35	045
-	15	030
	20	015

a. 48km – 24km 200m

	km	m
	48	000
-	24	200
	23	800

b. 85km 542m – 14km 34m

	km	m
	48	542
-	24	034
	24	508

1. Word problem:

a. Arya travelled 5km 300m by car and 1km 100m by bike. What distance did he travel in all?

	5 km 300 m	by car
+	1 km 100 m	by bike
	6 km 400 m	he travels in all

b. Gaurav is 92cm tall. His brother is 60cm taller than him. What is the height of his brother?

92 cm
+ 60 cm
152 cm height of his brother.

- **Complete the table and answer the questions below**

sr.no	name of the plant	last months heigt	this month height	cm-grown
1	Rose	28cm	29cm	1cm
2	Mango	13cm	15cm	2 cm
3	Bamboo	22cm	28cm	6 cm
4	Tulsi	8cm	10cm	2 cm

a. The plant which has grown maximum is **bamboo.**

b. The plant which has grown minimum is **Mango, Tulsi.**

c. The plant which has grown by 6 cm is **bamboo.**

d. The plants which has grown by 2 cm is **Mango, Tulsi.**

- **Read the following table and answer the following question**

SL.NO	NAMES	DISTANCE OF SIXES BEATENIN A CRICKET MATCH
1	SACHIN	90m
2	YUVARAJ	101 m 5cm
3	GAMBHIR	52 m 25cm

a. What is the difference between the distance hit by Sachin and Yuvaraj?
Ans: 11 m 5 cm.

Activity

Make your own height measurement in cm.