

**CLASS – 8**

**Activity 1:** Fold a paper 8 times in any way. Unfold and locate various convex and concave polygons.

**Activity 2:** To verify that the sum of interior angles of a quadrilateral is  $360^0$  by paper cutting and pasting.

**Activity 3:** To verify that the sum of measures of the exterior angles of any polygon is  $360^0$  by paper cutting and pasting.

(Note: Verify the result for a triangle, quadrilateral, pentagon and hexagon)

**Activity 4:** To make the following by paper folding and cutting

- a. a kite
- b. a rhombus

**Activity 5:** To verify that

- i) diagonals of a rectangle are of equal length
- ii) diagonals of a square are of equal length
- iii) Investigate the results for a rhombus and a parallelogram, using stretched threads.

**Activity 6:** (Group Activity)

- a) Do a survey of your class and collect the data from all students of your class who spent more than 4 hours in watching TV. Represent the collected data, in the form of a histogram by paper cutting and pasting.
- b) Write how much you spent during a day in the following headings
  - i) school      ii) homework    iii) play      iv) sleep
  - v) watching TV      vi) othersRepresent the information in a Pie chart.

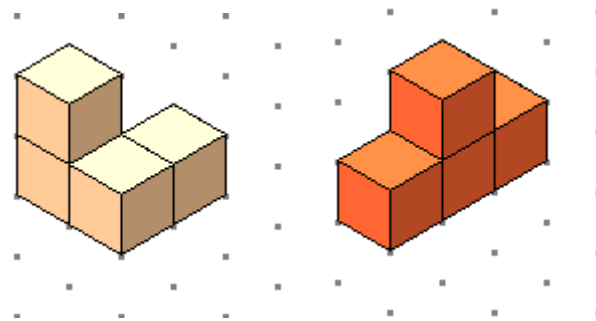
**Activity 7:** To observe the following number patterns and generate it up to next three steps

$$\begin{array}{l} \text{i)} \quad 1^2 = 1 \\ \quad \quad 11^2 = 1 \quad 2 \quad 1 \\ \quad \quad 111^2 = 1 \quad 2 \quad 3 \quad 2 \quad 1 \end{array}$$

$$\begin{array}{l} \text{ii)} \quad 1+3 = 4 = 2^2 \\ \quad \quad 1+3+5 = 9 = 3^2 \\ \quad \quad 1+3+5+7 = 16 = 4^2 \end{array}$$

(Note: Teacher may take any other such number patterns)

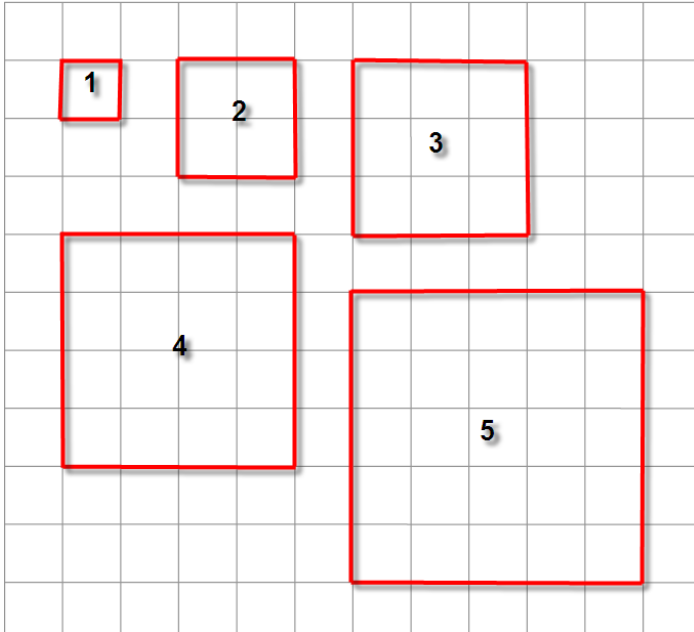
**Activity 8:** Draw front view, top view and side view of the following shapes made by unit cubes.



**Activity 9:** To make cubes and cuboids of given dimensions using unit cubes and to calculate volume of each.

- (i)  $4 \times 3 \times 2$
- (ii)  $3 \times 3 \times 3$

- Activity 10: To explore the relationship between
- (i) Length (in cm) and perimeter (in cm)
  - (ii) Length (in cm) and area (in  $\text{cm}^2$ )
- of 5 squares of different dimensions drawn on a squared paper.



Length of a side (L)	Square 1	Square 2	Square 3	Square 4	Square 5
Perimeter (P)					
Area (A)					
P/L					
A/L					