

## **LIST OF HANDS-ON ACTIVITIES IN MATHEMATICS**

### **Mathematics Laboratory**

The concept of Mathematics Laboratory has been introduced by the Board in its affiliated schools with the objective of

- Making teaching and learning of the subject interactive, participatory, funfilling and joyful from primary stage of schooling.
- Strengthening the learning of mathematical concepts through concrete materials and hands-on-experiences.
- Relating classroom learning to real life situations and discourage rote and mechanical learning.

Given below is the list of activities to be done by the students in classes IV during each academic year.

### **GRADE 4**

**Activity 1:** To draw the following on a dot paper

- i) triangle
- ii) square
- iii) rectangle

**Activity 2:** (a) To find the centre of a circle by paper folding and verify that length of radius of the circle is always same.

(b) To make a geometrical design using compass and a ruler.

- (c) To make a pattern of different circles with
- i) same centre and different radii
  - ii) same radii and centre's on the same line

**Activity 3:** Do the following by paper folding

a) Transform a square into

- i) four rectangular quarters
- ii) four square quarters
- iii) four triangular quarters

b) Transform a rectangle into

- i) four rectangular quarters
- ii) four triangular quarters

**Activity 4:** To mark  $\frac{1}{4}$  m,  $\frac{1}{2}$  m and  $\frac{3}{4}$  m on a string of length 1 m.

**Activity 5:** (Hand Print Activity)

- To shade  $\frac{1}{4}$ <sup>th</sup> region of your palm print.
- To make patterns using thumb prints.

**Activity 6:** To make a repeated tiling pattern on a dot paper , using geometrical shapes as tiles.

**Activity 7:** (a) To write a secret code message if all the English alphabets are replaced by numbers from 1 to 26 ,respectively ,in order.

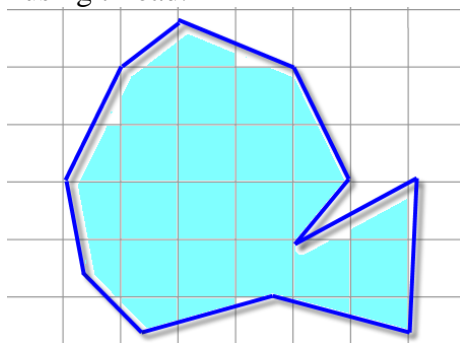
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	.....	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	.....	

(b) To decode the given message on the basis of above code.

9      12 15 22 5              13 25      9 14 4 9 1

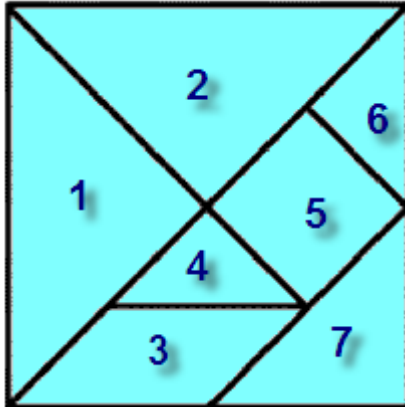
**Activity 8:** (a) To find the length of the boundary of the top of mathematics text book in (cm) using a thread.

(b) To find the length of the boundary of any shape in (cm) drawn on a paper using thread.



**Activity 9:** To write your name using tangram set.

Note: Teacher may ask the students to cut tangram pieces using the given diagram. Make duplicate copies of it.



**Activity 10:** (Group Activity)

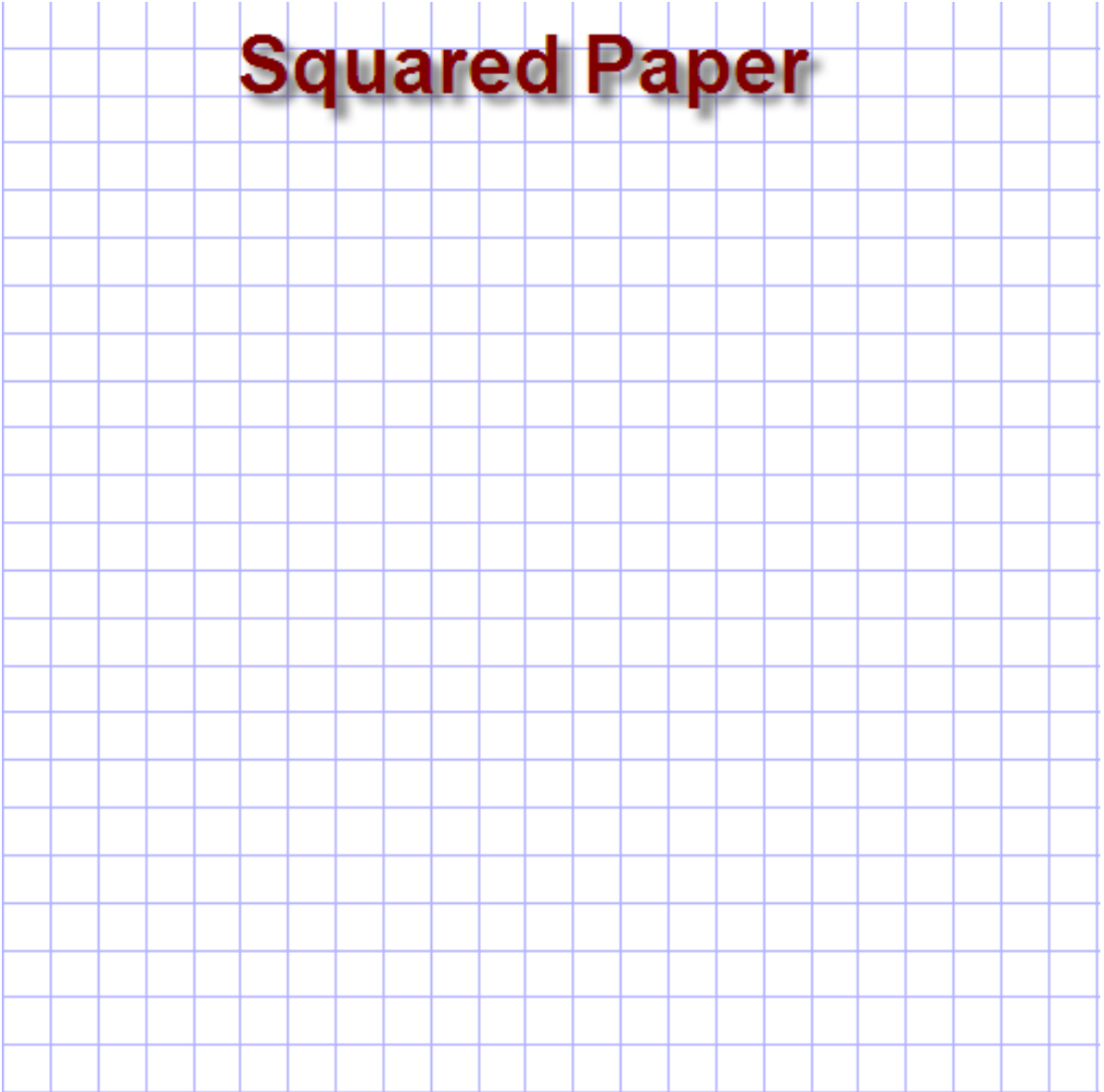
Divide the class in the groups of 5(say) and perform the following activities in each group.

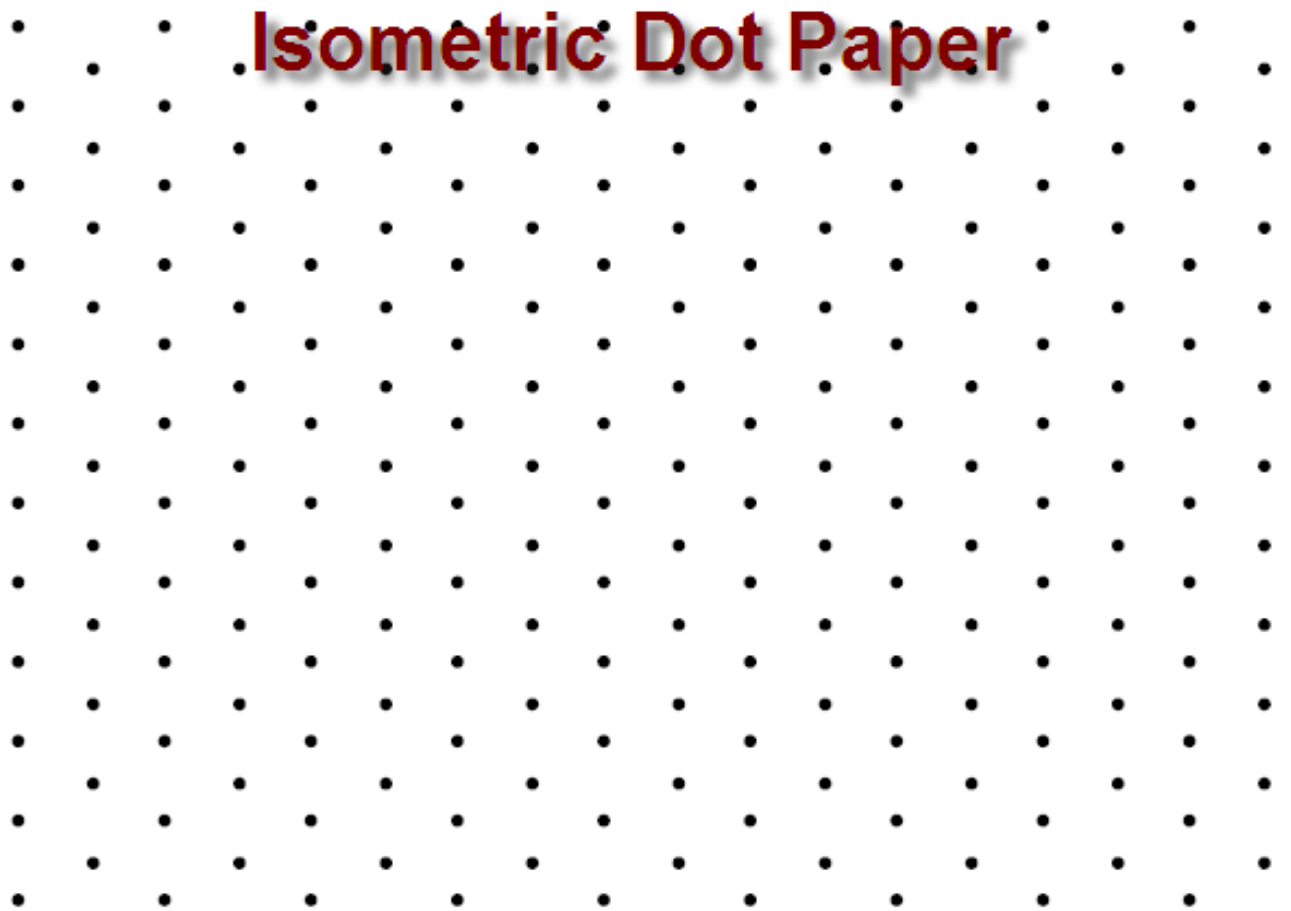
- i) Measure the height of each member in cm(s) using a measuring tape.
- ii) Measure the weight of each member in (kg) using a weighing machine and answer the following.
- iii) Who is the tallest member of your group?
- iv) Who is the shortest member of your group?
- v) What is the maximum weight measure in your group?
- vi) What is the minimum weight measure in your group?

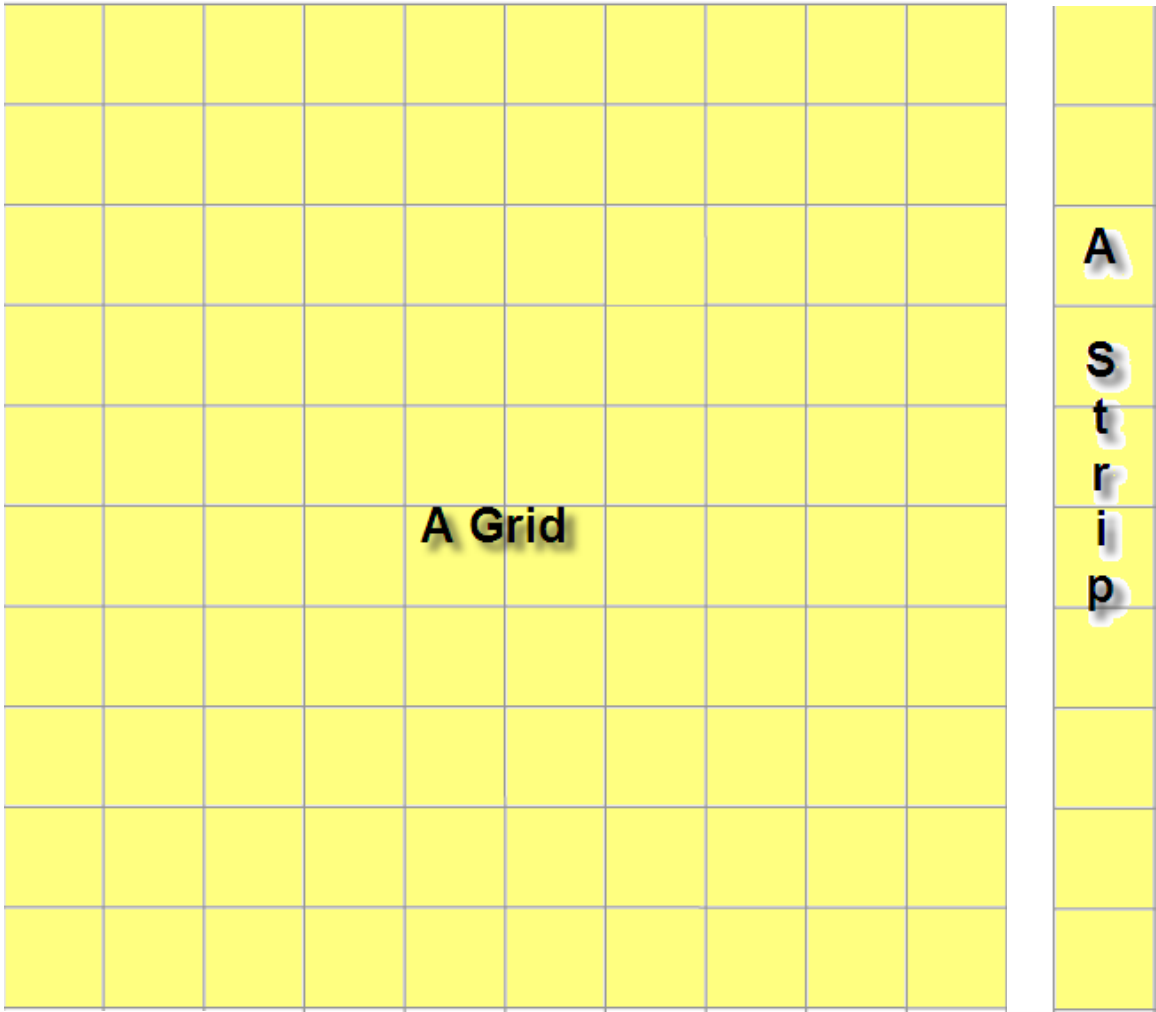
**List of materials for performing activities in Mathematics Lab**

- ▶ Dot paper
- ▶ Geometry box
- ▶ String of length 1 m
- ▶ Square piece of paper
- ▶ Rectangular piece of paper
- ▶ Coloured paper/ origami paper
- ▶ Pair of scissors
- ▶ Glue

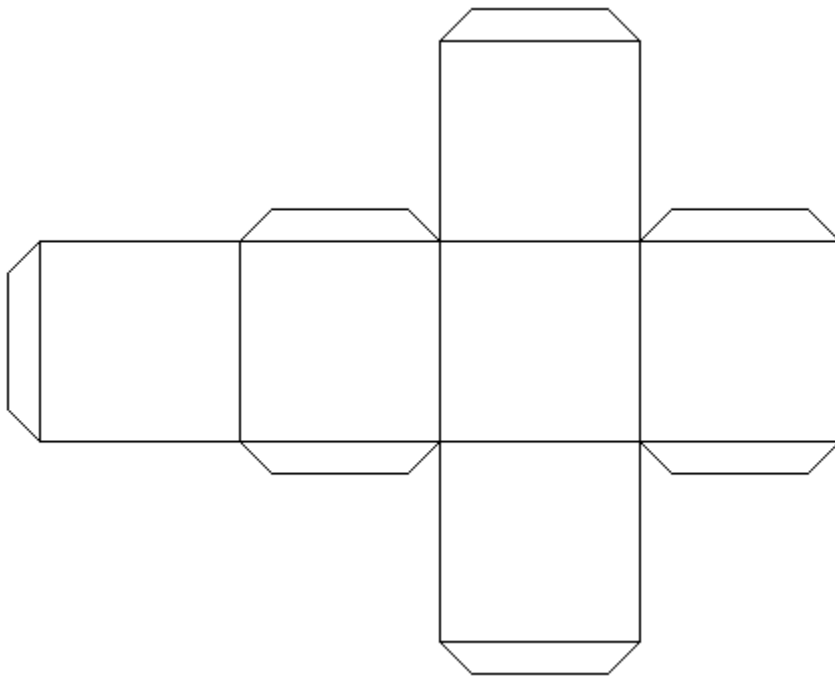
# Squared Paper



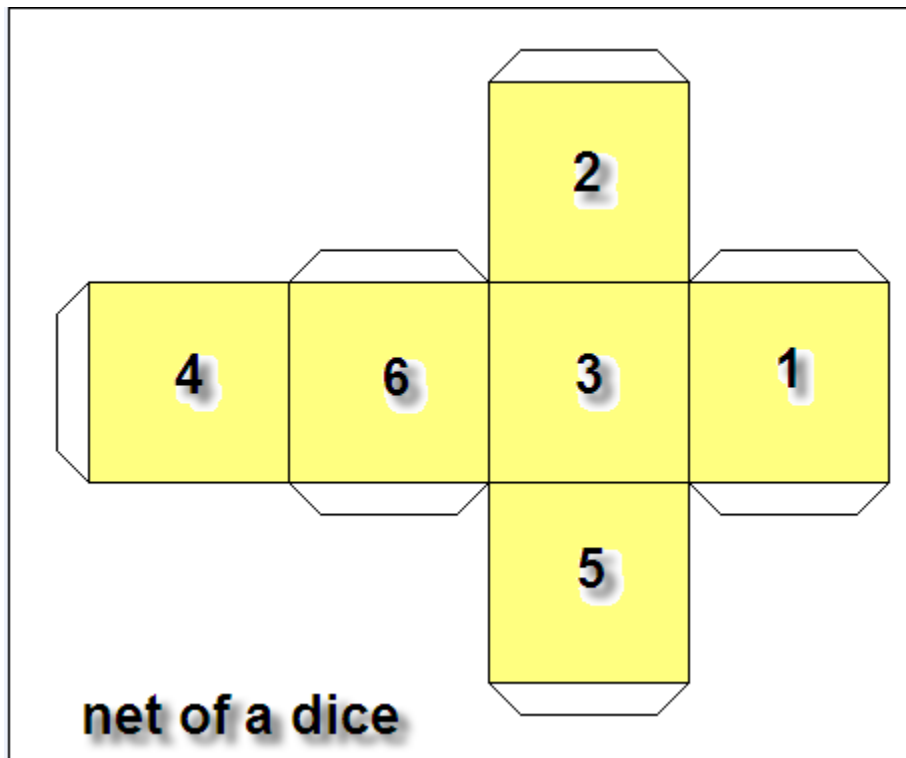




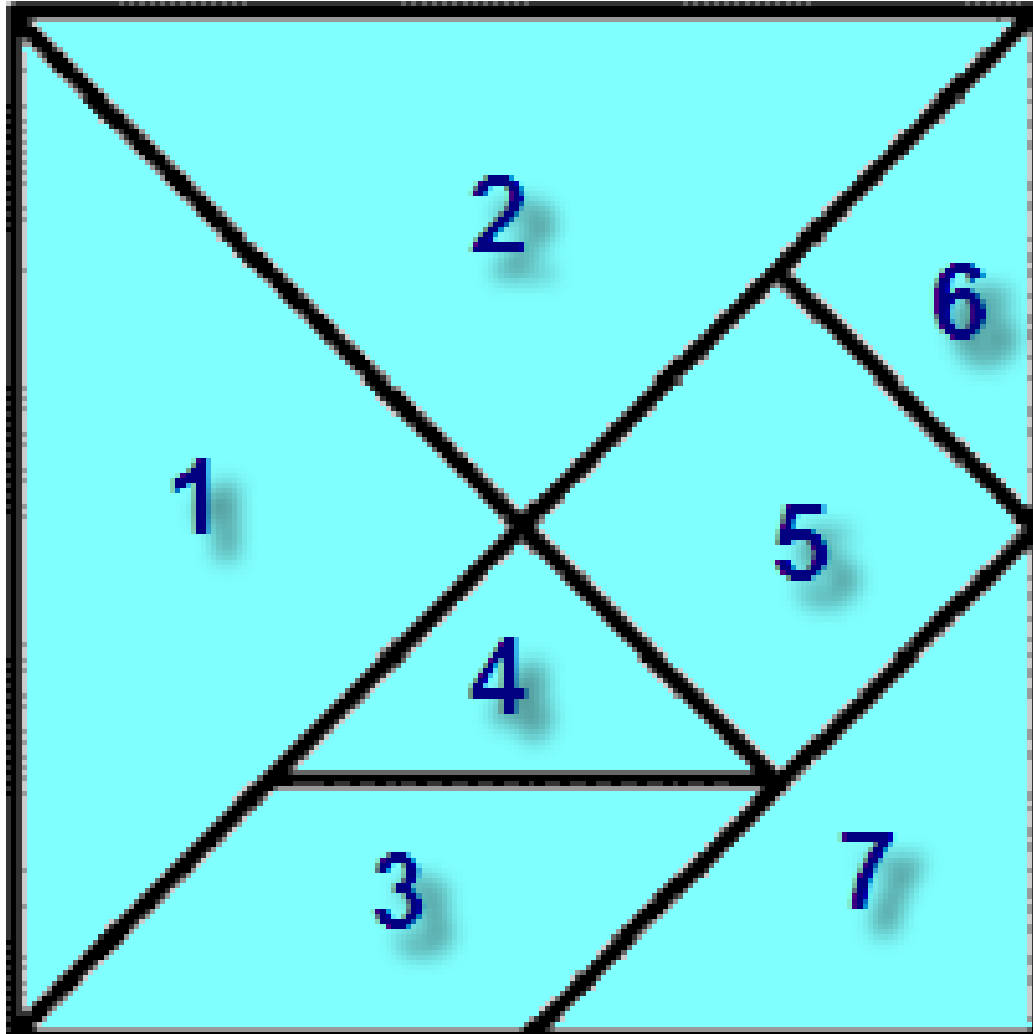
  
**A Slip**



**Net of a cube**



# Tangram





## Tangram on 8 X 8 Squared paper

