

ACTIVITY NO . – 2 SHAPES AND ANGLES

SUBJECT	MATHEMATICS
CLASS	V
CHAPTER/UNIT	SHAPES AND ANGLES
TOPIC	TRIANGLE IS THE MOST RIGID POLYGON
TIME	30 MINUTES
NATURE OF ACTIVITY	INDIVIDUAL

What will I learn (Learning Outcome)?

Proving that triangle is the most rigid shape through leaning by doing.

Skills: Understanding, Applying, Strengthening kinesthetic skills.

What I have to do?

To understand why triangle is the most rigid shape (polygon).

What do I require?

Toothpicks/wooden sticks, valve tube pieces / hollow rubber connecting wires and cutter / scissors.

What do I need to know?

Names of types of polygons on the basis of their number of sides.

➤ Teacher's Activity :

Teacher will recall the names of polygons on the basis of their sides.

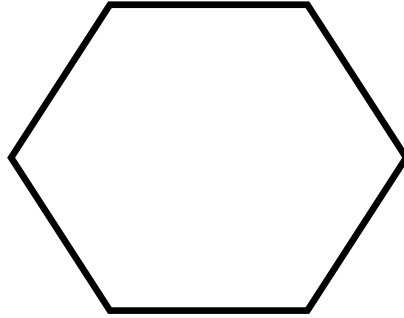
How will I proceed?

➤ Student's Activity :

- 1) Take a sufficient number of wooden sticks about 10 cm in length.
- 2) Cut valve tube pieces each of length, say, 3 cm.

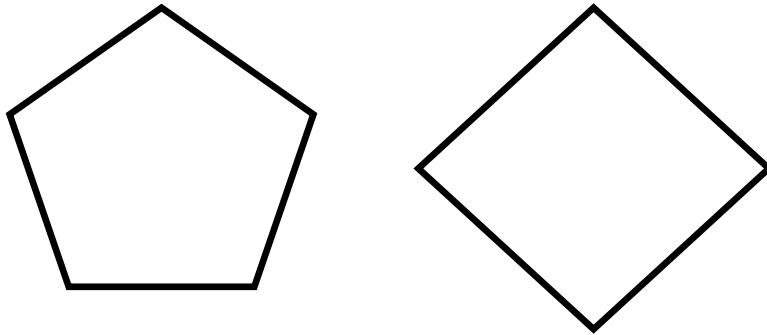
3) Join the sticks with the help of valve tube pieces to make different shapes such as a triangle, quadrilateral, pentagon and hexagon.

4) Press any vertex or any side of the hexagon made of sticks.(Fig. 1)



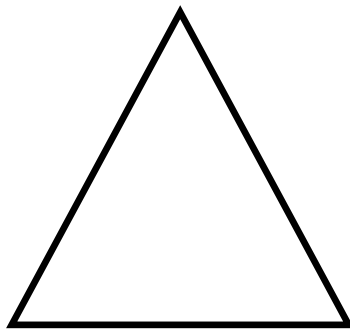
(Fig. 1)

5) Press any vertex or any side of the pentagon and the quadrilateral.(Fig. 2)



(Fig . 2)

6) Press any vertex or any side of the triangle.(Fig. 3)



(Fig.3)

What have I observed?

<u>Number of sticks used</u>	<u>Name of the polygon</u>	<u>Change shape after pushing at a vertex (Yes/ No)</u>
3		
4		
5		
6		

What have I learnt? :

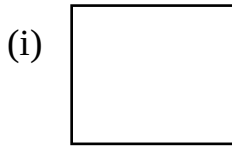
Triangle is the only polygon which is rigid and does not change its shape even after pushing its sides.

What am I curious to know?

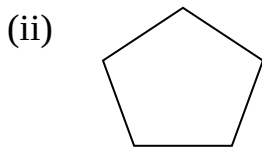
Does heptagon and octagon also change the shape on performing the same activity?

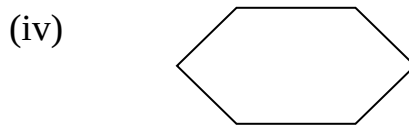
Let me evaluate myself

Q1) Name the following polygons.

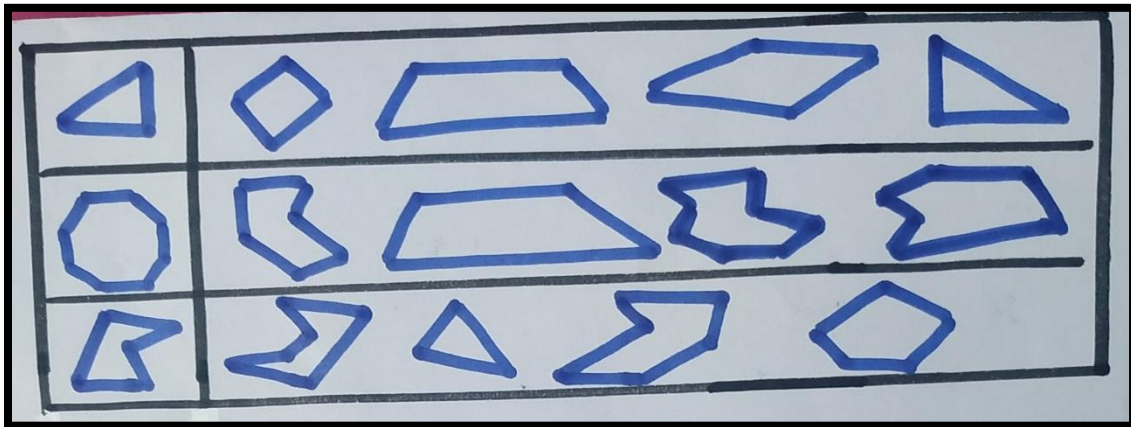








Q2) (a) Circle the polygon that has the same number of sides.



(b) Color the polygon which has different number of sides.

