

ACTIVITY -6

TOPIC: TRIANGLE AND ITS PROPERTIES

TITLE: ANGLE SUM PROPERTY OF A TRIANGLE

1. What we have to do?

To examine that the sum of the interior angles of a triangle is 180° .

2. What is required?

Coloured sheets, a pair of scissors, geometry box and adhesive.

3. How much time is required?

30 – 40 minutes

4. What do you need to know?

Types of Angles and a Straight line.

5. How will you proceed?

a. Take a sheet and draw a triangle of any dimension.

b. Name the three interior angles as $\angle 1$, $\angle 2$ and $\angle 3$ as shown in Fig.1.

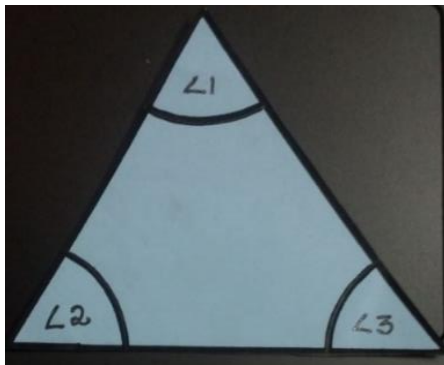


Fig.1

c. Cut all the three angles which you have marked, as shown in Fig.2



Fig.2

- d. Rearrange the three angles in such a way that they together constitute one straight angle, as shown in Fig.3.



Fig.3

6. **What have you observed?**

- Sum of the three angles $\angle 1$, $\angle 2$ and $\angle 3$ of a triangle is _____.
- Can a triangle have two acute angles?
- Can a triangle have two obtuse angles?

7. **What have you learnt?**

8. **Extended Activity**

Draw a triangle of sides 7 cm, 8 cm and 10 cm and verify that the sum of the three angles of a triangle is 180° by paper cutting and pasting.

Real life Applications:

The above concept is used in our day-to-day life incidents viz. construction, making triangular shaped eatables, making domes, sports, making pyramids etc....