**MATHEMATICS PROJECT**

**CLASS: 9 KB**

**TOPIC: ANGLE AT THE CENTRE OF A CIRCLE IS TWICE THE ANGLE SUBTENDED ON THE REMAINING PART OF THE CIRCLE**

**OBJECTIVE:** To verify that the angle subtended by an arc at the centre of a circle is twice the angle subtended by the same arc at any other point on the remaining part of the circle, using methods of paper cutting, pasting and folding.

**MATERIALS REQUIRED:**

1. Geometry box
2. Practical workbook
3. Coloured chart papers – yellow, blue and red
4. Scissors
5. Scale
6. Sketch pen
7. Adhesives or glue sticks
8. Tracing papers – 2

**PROCEDURE:**

1. Draw a circle of 5 cm radius on a blue coloured chart paper. Use black sketch pen for drawing.
2. Cut out the circle.
3. Take a yellow chart paper. Cut it in the size of an A4 sheet and paste the circle on it.



1. Take two points A and B on the circle to obtain the arc AB.



1. Form a crease joining OA (by folding) and draw OA.
2. Form a crease joining OB (by folding) and draw OB.



1. Arc AB subtends $∠AOB$ at the centre O of the circle.
2. Take a point P on the remaining part of the circle
3. Form a crease joining AP (by folding) and draw AP.
4. Form a crease joining BP (by folding) and draw BP.
5. Arc AB subtends $∠APB$ at the point P on the remaining part of the circle.



1. Place tracing paper on the circle and draw a replica of the $∠APB$. Prepare two such replicas of $∠APB$ with green or red chart papers.



1. Place the replicas adjacent to each other on $∠AOB$



 **RESULT:**

It is noted that the two replicas placed adjacently completely cover $∠AOB. ∴ ∠AOB=2∠APB$

**LAST DATE OF SUBMISSION OF PROJECT: 15th July, 2017**