

Subject	MATHEMATICS
Class	IX
Chapter/Unit	Geometry
Topic	Circles
Time	20 minutes
Nature of Activity	Individual

What will I learn(Learning outcome)?

To verify that equal chords of a circle are equidistant from the centre

Skills:- Constructing, Justifying ,Applying

What I have to do?

To verify that equal chords of a circle are equidistant from the centre using paper cutouts.

What do I require?

Coloured paper, a pair of scissors, ruler

What do I need to know?

Chords of a circle, Drawing perpendicular from the centre to the chord

➤ **Teacher's Activity**

The teacher will explain the concept and ask them to verify the same by cutting a circle and making equal chords by paper folding and finding the length of perpendiculars dropped on it from the centre .

How will I proceed?

➤ **Student's Activity**

- Cut a circle from the coloured paper with centre O
- Make two equal chords by paper folding and name it as AB and CD
- Drop perpendiculars OP on AB and OQ on CD from centre O
- Measure the length of OP and OQ

What have I observed?

Length of OP = _____

Length of OQ = _____

What have I learnt?

Equal chords are _____ from the centre.

What am I curious to know?

To verify that chords equidistant from the centre are equal.

Let me evaluate

1.If BC is a diameter of a circle of centre O and OD is perpendicular to the chord of a circle, show that $CA = 2OD$

2. Prove that the line segment joining the midpoints of two equal chords of a circle make equal angles with the chords
