

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

What will I learn(Learning outcome)?

To prove that four triangles formed by the intersection of diagonals of a square are congruent

Skills:- Psychomotor, Justifying, Analyzing

What I have to do?

To prove that four triangles formed by the intersection of diagonals of a square are congruent using paper cutting and pasting

What do I require?

Square paper, pencil, pair of scissors.

What do I need to know?

Square, Diagonals, Triangles, Congruent triangles

➤ **Teacher's Activity**

The teacher will explain the concept and ask students to cut a square and make diagonals by paper folding and write observations.

How will I proceed?

➤ **Student's Activity**

- Cut a square $ABCD$
- Join AC and BD by making a crease
- Mark the point of intersection as O
- Four triangles are formed
- Cut these triangles out
- Keep all triangles one above the other.

What have I observed?

The four triangles exactly _____ each other

What have I learnt?

The four triangles formed by the intersection of diagonals are _____

What am I curious to know?

To verify that the triangles formed by the intersection of diagonals of regular hexagon are congruent

Let me evaluate myself

1. Show that the diagonals of a square are equal and bisect each other. _____

2. Show that each angle of a rectangle is a right angle
