



Class	Subject	Time slot	Lesson	Topic
IX	Mathematics	35 +35 Mins 2 Pd	Quadrilaterals	P6 and P7 Mid-point theorem
<u>Expected Learning Outcome:</u> Learners will be able to 1. To verify midpoint theorem. 2. Apply it in real life situations.				
<u>Expected skill development:</u> 1) Developing connections between different properties of quadrilaterals 2) Procedural thinking while proving two triangles congruent. 3) Visual and spatial understanding to prove congruency.				

FLOW OF LESSON WITH RESPECT TO TIME (Introduction/warm-up, Content, Think Line, Closure)

<u>Pedagogy</u>	<u>Content</u>
<u>(10 mins) Warm Up</u> Discussion, demonstration Method. Learning by doing method by discussion and black board work.	What are the various ways to prove two triangles are congruent? Students will draw diagrams on the black board and show various criteria.
<u>(50 mins) Demonstration by Facilitator on Board</u> Demonstration and interaction method	Theorem 8.9: The line segment joining the mid-point of two sides of a triangle is parallel to the third side. Proof by facilitator in the notebook Facilitator will discuss Q -3 of ex – 8.2 on Black Board. 3. ABCD is a rectangle and P, Q, R and S are mid-points of the sides AB, BC, CD and DA respectively. Show that the quadrilateral PQRS is a rhombus.
<u>(10 mins) in class exercise : closure</u> Discussion and interaction method	Theorem 8.10: The line drawn through the mid-point of one side of a triangle, parallel to another side bisect the third side. (converse of MPT)

Proposed questions (must include the questions asked in the classroom and the ones given as class work in the notebook) Example 7 : In ΔABC, D, E and F are respectively the mid-points of sides AB, BC and CA (see Fig. 8.27). Show that ΔABC is divided into four congruent triangles by joining D, E and F. Fig. 8.27 Example 8 : l, m and n are three parallel lines intersected by transversals p and q such that l, m and n cut off equal intercepts AB and BC on p (see Fig. 8.28). Show that l, m and n cut off equal intercepts DE and EF on q also. Fig. 8.28	
Evaluation and assessment: Notebook work, black board work.	
Learners on the way: Q1 page 151	Advanced learners: Q2 page 152
Materials required/ resources: Chalk, duster, NCERT Exemplar and text book.	
Common misconceptions: Learners may find it difficult in understanding that the theorem can be used in special types of triangles.	Addressing misconceptions: Facilitator will explain that this theorem can be applicable in each type of triangle.
Home assignment: Do Q1, 2, 4,5,6 of NCERT text book class 9	

