LESSON PLAN 5

NAME OF THE UNIT	SUB-TOPICS	NO OF PERIODS REQUIRED			Time line for teaching	
		Teaching	Practice	TOTAL	From	To
LINES AND ANGLES	5.1 INTRODUCTION 5.2 RELATED ANGLES 5.2.1 COMPLEMENTARY ANGLES 5.2.2 SUPPLEMENTARY ANGLES	2	3	5		
	5.3 PAIRS OF LINES 5.3.1 INTERSECTING LINES 5.3.2 TRANSVERSAL 5.3.3 ANGLES MADE BY A TRANSVERSAL	2	3	5		
	5.3.4 TRANSVERSAL OF PARALLEL LINES 5.4 CHECKING FOR PARALLEL LINES	2	4	6		
	TOTAL	6	10	16		

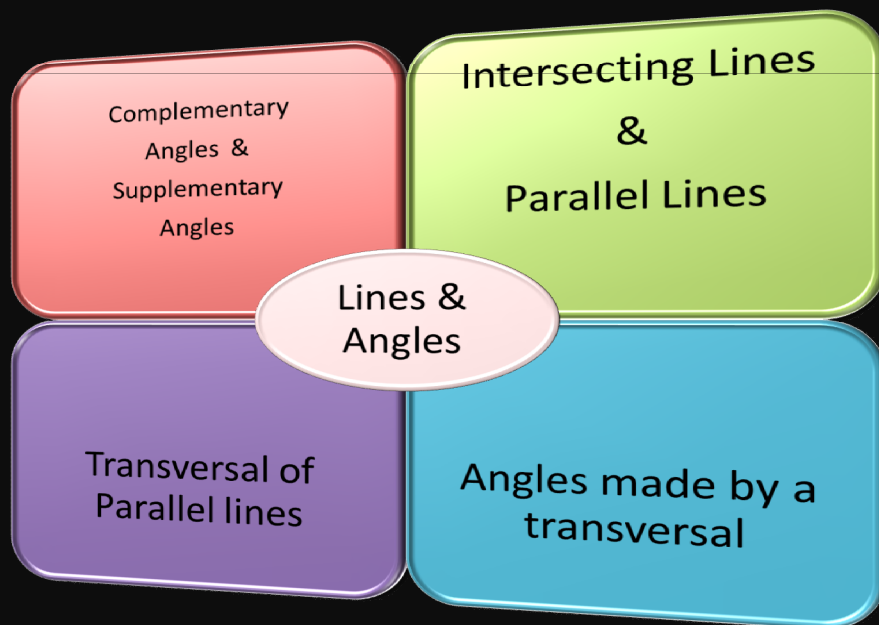| PRE-REQUISITES	KEY CONEPTS	KEY VOCABULARY	
	Every Pupil is expected to have basic knowledge in # basic geometric terms like point, line, line segment, ray, angle, intersecting lines, parallel lines, acute angle, obtuse angle, right angle and other angles. # naming basic geometrical shapes using english alphabet. # various parts of a mathematical instrument box. # utilization of geometrical instruments from geometry box. # four basic operations like +,-,x and ÷	# Complementary angles # Supplementary angles # Intersecting lines # Parallel lines # Point of intersection # Opposite angles # Adjacent angles # Transversal	# Distinct Points # Interior angles # Exterior angles # Corresponding angles # Alternate angles

Learning Outcomes

After Completion of this lesson every student will be able to
  # find the counter part of every complementary angle in its pair as well as in Supplementary pair.
  # identify all angle pairs generated out of a transversal passing through two lines.
  # recognize pairs of supplementary angles and equal angles generated out of a transversal passing through two parallel lines
  # can differentiate between intersecting lines and parallel lines
  # recognize the significance and appreciate the importance of Lines and Angles in real life situations.
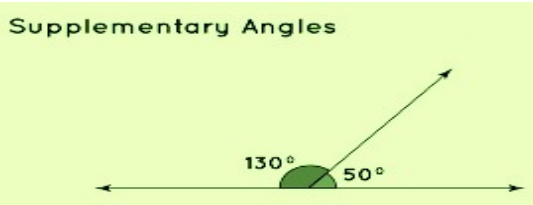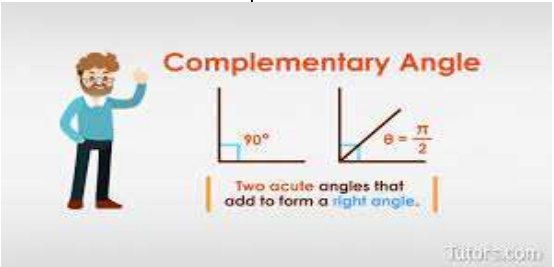
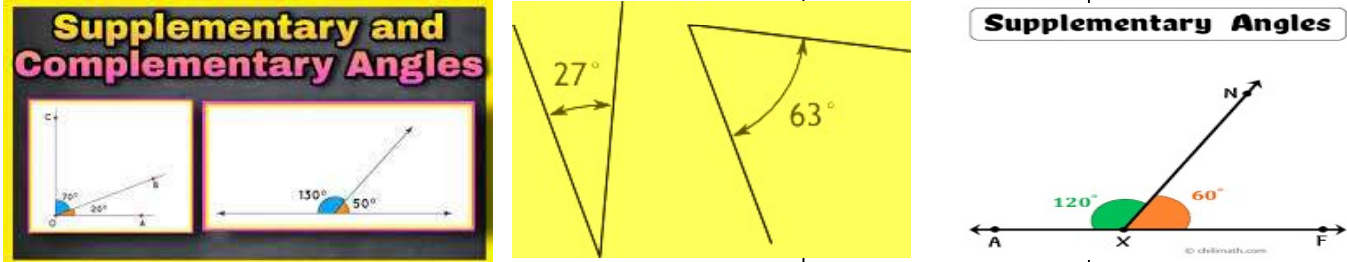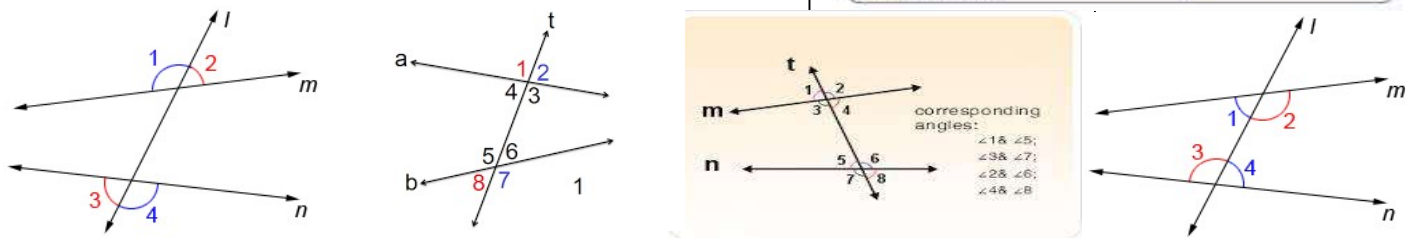| Teaching Learning Process	
MIND MAPPING	Experience & Reflection

Complementary Angles & Supplementary Angles

Intersecting Lines & Parallel Lines

Lines & Angles

Transversal of Parallel lines

Angles made by a transversal

Pupils will recollect their knowledge on basic geometric concepts like Point, Line, Line segment, ray, angle, different types of angles etc and will utilize that knowledge in exploring deep into this new concept of lines and angles
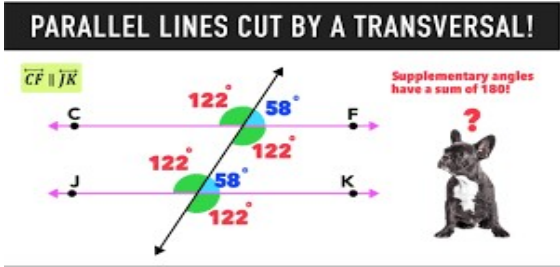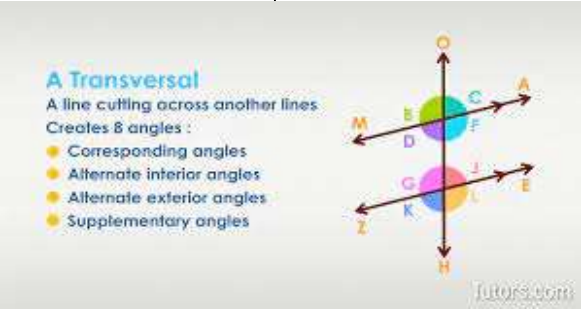
Students will experience the applications of Lines & Angles in real life situations.
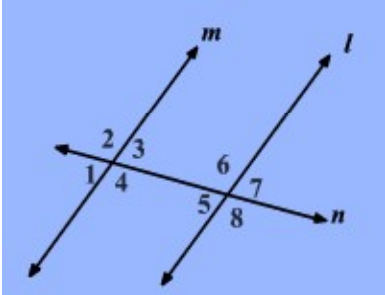
TEACHING PERIOD : 1,2	INTRODUCTION, RELATED ANGLES, COMPLEMENTARY ANGLES, SUPPLEMENTARY ANGLES		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS & PRE REQUISITES	Brain storming session invoving children with pre-requisites vocabulary and concepts related to previous knowledge. Introduction of new vocabulary and key words associated with the concept # Angles # Acute Angle # Obtuse Angle # Right Angle # Complementary angle # Supplementary Angles	* Students read the pre-requisites and answer the questions to the teacher (whole class activity)	Every Pupil will read and write the key words in their note books
MIND MAPPING	Teacher writes the key word "LINES & ANGLES " on the black board and will elict its other related words through questioning and will draw pupils' attention towards key concepts in the lesson	Hetrogeneous groups are created. One group will read the words and other will explain the meaning	Pupils individually read the keywords associated with the chapter
CONCEPTUAL UNDERSTANDING	Teacher asks children various questions testing their previous knowledge regarding lines and angles and later poses different questions to children by grouping them towards the concept of Complementary and Supplementary Angles. Teacher asks children to cite different pairs of angles whose sums are 90^0 and 180^0. After getting different answers teacher demonstrates the concept of complementary and supplementary angles by drawing different examplary pairs of complementary and supplementary angles. Teacher also engages children in an activity of drawing different pairs of complementary and supplementary angles and cross check by measuring them. 	Hetrogeneous groups are formed to participate in answering the questions posed by the teacher by discussion	Each student in the group participates in answering the questions posed by the teacher and learns the concept of complementary and supplementary pairs of angles
SUMMARY	Teacher writes the summary of the concept in a step wise procedure and asks children to note and read	pupils will note down and read the summary in groups	every individual reads the summary and notes it down
ASSESSMENT	Teacher asks children to solve the sums of try these section, Think Discuss & Write along with example sums and exercise sums of 5.1	every group will do the sums by discussion among each other	every individual solves the sums on their own

PRACTICE PERIOD: 1,2,3	INTRODUCTION, RELATED ANGLES, COMPLEMENTARY ANGLES, SUPPLEMENTARY ANGLES		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # Angles # Acute Angle # Obtuse Angle # Right Angle # Complementary angle # Supplementary Angles	Whole class activity : one child comes to the board and reads the key words loudly and the remaining	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher cites some examples of complementary pairs of angles and supplementary pairs of angles and asks children to cite some more by watching similar lines 	Each group will read the similar lines and will frame some more by discussion 	Every Individual prepares their own similar lines using the lines prepared by the teacher
SUMMARY/ SYNOPSIS	Teacheronce again writes important key words and summary of the concept and asks children to read,note down and practice.	pupils will note down and read the summary in groups	every individual spells and reads the summary and notes it down
WRITING/ EDITING	Teacher guides children in doing sums of exercise 5.1 on their own and checks their writings	One group will check the writings of the other and vice versa	Slow learners are focused and teacher will ascertain that every individual learns the concept in the forth coming practice sessions

TEACHING PERIOD : 3,4	PAIRS OF LINES, INTERSECTING LINES, TRANSVERSAL, ANGLES MADE BY A TRANSVERSAL		
CONCEPTS/STEPS	**TEACHER ACTIVITY (I DO)**	**GROUP ACTIVITY (WE DO)**	**INDIVIDUAL ACTIVITY (YOU DO)**
KEY WORDS	Brain storming session invoving children with key words # Intersecting lines # Point of Intersection # Opposite Angles # Adjacent Angles # Distinct points # Transversal # Corresponding angles # Alternate Angles # Interior Angles # Exterior Angles # Alternate Interior Angles # Alternate Exterior Angles # Interior angles on the same side of transversal	* Students read the keywords answer the questions to the teacher (whole class activity)	Every Pupil will read and write the key words in their note books
CONCEPTUAL UNDERSTANDING	Teacher demonstrates the concepts of Intersecting lines, Transversal and angles made by a transversal with help of different teaching aids and working models and ascertains that every child gets proper acquaintance with these concepts. An activity involving hetrogeneous groups is conducted wherein pupil groups will identify different pairs of angles like Corresponding Angles, Alternate Interior Angles, Alternate Exterior Angles and angles on the same side of transversal in the given diagrams consisting of transversal and a pair of lines. 	pupils are divided into hetrogenous groups and engaged in the activity 	Each student in the group participates in the activity and learns the concept of angles made by a transversal
SUMMARY	Teacher once again writes important key words and summary of the concept and asks children to note down and adopt.	Pupils will note down and read the summary in groups	Every individual reads the summary and notes it down and adopts the procedure
ASSESSMENT	Teacher gives some questions from Try These sections and asks children to do those sums	Every group will do the sums by discussion among each other	Every individual solves the sums on their own
PRACTICE PERIODS:4 to 6	PAIRS OF LINES, INTERSECTING LINES, TRANSVERSAL, ANGLES MADE BY A TRANSVERSAL		
CONCEPTS/STEPS	**TEACHER ACTIVITY (I DO)**	**GROUP ACTIVITY (WE DO)**	**INDIVIDUAL ACTIVITY (YOU DO)**

KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # Intersecting lines # Point of Intersection # Opposite Angles # Adjacent Angles # Distinct points # Transversal # Corresponding angles # Alternate Angles # Interior Angles # Exterior Angles # Alternate Interior Angles # Alternate Exterior Angles # Interior angles on the same side of transversal	Whole class activity : one child comes to the board and reads the key words loudly and the remaining class follows.	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher draws a pair of intersecting lines and a transversal and marks different pairs of angles and asks children to mark similarly for some more different pairs by watching these similar lines **Special Angle Pairs Formed by Two Lines and a Transversal** 1 2 3 4 5 6 7 8 Alternate Interior Angles 1 2 3 4 5 6 7 8 Corresponding Angles 1 2 3 4 5 6 7 8 Alternate Exterior Angles 1 2 3 4 5 6 7 8 Same-Side Interior Angles Mrs. McConaughy Geometry	Each group will read the similar lines and will frame some more by watching them	Every individual will watch the similar lines and will frame some more
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and summary of the concepts covered and asks children to note down and adopt.	Pupil groups will read and adopt the procedure	Teacher focuses on every individual so that each one learns the concept of pair of intersecting lines and a transversal in successive upcoming practice sessions
WRITING/ EDITING	Teacher gives some questions from Try These sections and guides them in doing some sums of examples and teacher checks the writings of children	One group will check the writings of the other and vice versa	

TEACHING PERIOD : 5,6	TRANSVERSAL OF PARALLEL LINES, CHECKING FOR PARALLEL LINES		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS	Brain storming session invoving children with key words # Parallel lines # transversal # Opposite Angles # Adjacent Angles # Distinct points # Transversal # Corresponding angles # Alternate Angles # Interior Angles # Exterior Angles # Alternate Interior Angles # Alternate Exterior Angles # angles on the same side of transversal	* Students read the key words and answer the questions to the teacher (whole class activity)	Every Pupil will read and write the key words in their note books
CONCEPTUAL UNDERSTANDING	Teacher conducts an activity involving children to measure the pairs of corresponding angles, Alternative angles, Angles on same side of the transversal for the given systems of lines and check the equality or supplementary. (Here teacher gives them different parallel line sets intersected by transversals). Pupils themselves find that for all those systems of parallel lines, corresponding angle pairs, alternate angle pairs are equal and angles on the same side of the transversal are supplementary and vice versa	Hetrogeneous groups are created and are engaged in activity	Every child participates in the activity and understands the concept of transversal
LEARNING ACTIVITY			
SUMMARY	Teacher writes the summary of the concept and summary of the concept discussed and asks children to read, note down and adopt	pupils will note down and read the summary in groups	every individual reads the summary and notes it down and adopts the procedure
ASSESSMENT	Teacher gives some questions from Try These section and exercise sums of 5.2,and asks children to solve those sums	every group will do the sums by discussion among each other	every individual solves the sums on their own

PRACTICE PERIODS: 7 to 10	TRANSVERSAL OF PARALLEL LINES, CHECKING FOR PARALLEL LINES		
CONCEPTS/STEPS	**TEACHER ACTIVITY (I DO)**	**GROUP ACTIVITY (WE DO)**	**INDIVIDUAL ACTIVITY (YOU DO)**
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # Parallel lines # transversal # Opposite Angles # Adjacent Angles # Distinct points # Transversal # Corresponding angles # Alternate Angles # Interior Angles # Exterior Angles # Alternate Interior Angles # Alternate Exterior Angles # Interior angles on the same side of transversal	Whole class activity : one child comes to the board and reads the key words loudly and the remaining class follows.	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher illustrates angles formed by a transversal with a pair of parallel lnes by taking some examples and asks children to write some more by watching similar lines L3 ,L5 and L4, L6 are two pairs of alternate interior angles	Each group will read the similar lines and will frame some more by discussion	Every Individual prepares their own similar lines using the lines prepared by the teacher
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and summary and asks children to read ,note down and adopt.	Pupil groups will read the summary and utilize	Teacher focuses on every individual so that each one knows and adopts the concept learnt in successive upcoming practice sessions
WRITING/ EDITING	Teacher asks children to solve the sums of exercise 5.2 on their own and teacher checks the writings of children	One group will check the writings of the other and vice versa	