

Class: VII	Subject: Mathematics	Day:1	Time duration:40 min
Name of the lesson/ unit	Ch-5 Lines and Angles		
Topic/lesson	Complementary and Supplementary Angles		
Learning Objective	To be able to recognize and solve problems based on complementary , supplementary angles, linear pair, vertical angles and angles made by transversal.		
Expected learning outcomes:	Student will be able to - Recall and define point , line , line segment , ray and angles. - Define and Classify the types of angles. - Define and Identify the complementary and supplementary angles. - Measure the complement and supplement of the angles.		
Common misconception (if any):	Students confuse in the terms complementary and supplementary and whether the sum of the angles should equal 90 or 180		
Prerequisite knowledge:	Knowledge of types of angles.		
Assessment of qualifying knowledge:	Differentiate between different types of angles . Knowledge of point, line , line-segment , ray and angle.(Board test & oral)		
Transaction methodology			
Starter/ warm up: Questioning(Verbal) (5 Min)	worksheet will be given. Students will be asked to solve the question related to point, line, line-segment ,ray and angle.		
GROUP ACTIVITY Collaborative Work : 10 Mins	<i>An activity will be conducted in a group of 4 students to explain complementary angles and supplementary angles-</i>		
Explanation and Flipped video : 10 Mins	After doing both the experiments teacher will explain about complementary angles and supplementary angles and will show Flipped video.		
Guided Practice (Peer Work) Collaborative Work in Notebook : 10 Mins	<i>Student will discuss the Questions from book with the peer and do in the notebook</i>		

Closure/ Plenary(Think Pair and Share) N.B: (5 Min)	<i>Oral quiz will be taken on the basis of complementary and supplementary angles.</i>
Home Learning	From book Assignment will be given
Resources	NCERT Book of Mathematics for Class VII Flipped video Lab activity using origami sheets



Khaitan Public School,Sahibabad

Class: VII	Subject: Mathematics	Day:2	Time duration:40 min
Name of the lesson/ unit	Ch-5 Lines and Angles		
Topic/lesson	Adjacent Angles and Linear Pair		
Learning Objective	To be able to recognize and solve problems based on complementary , supplementary angles, linear pair, vertical angles and angles made by transversal.		
Expected learning outcomes:	Student will be able to • Define and Identify Adjacent angles. • Define and Identify Linear pair.		
Common misconception (if any):	• Predicting adjacent angle when no common vertex and arm is there. • The non common arms are on either side of the common arm not on same side.		
Prerequisite knowledge:	Knowledge of types of angles.		
Assessment of qualifying knowledge:	Differentiate between different types of angles (Board test & oral)		
Transaction methodology			
Starter/ warm up: Questioning(Verbal) (5 Min)	Teacher will ask some real life questions to give the concept of adjacent angle		
Explanation & Discussion by the teacher-10 mins Questioning technique	Teacher will collect the response of the starter and introduce the term Adjacent angle :These angles are such that: (i) They have a common vertex; (ii) They have a common arm; and (iii) The non common arms are on either side of the common arm.		

Class: VII	Subject: Mathematics	Day:3	Time duration:40 min
Name of the lesson/unit	Ch-5 Lines and Angles		
Topic/lesson	Vertically Opposite Angle		
Learning Objective	To be able to recognize and solve problems based on complementary , supplementary angles, linear pair, vertical angles and angles made by transversal.		
Expected learning outcomes:	Student will be able to - Define and Identify the Vertically Opposite Angle. - Measure the missing value of Vertically Opposite Angle.		
Common misconception (if any):	- Assuming adjacent angle as Vertically Opposite Angle - Assuming Vertically Opposite Angle without common vertex. - Two lines should be intersecting lines not adjacent or other .		
Prerequisite knowledge:	Knowledge of types of angles.		
Assessment of qualifying knowledge:	Differentiate between different types of angles (Board test & oral)		
Transaction methodology			
Starter/ warm up: Group Activity <u>Collaborative Work</u> : 10 Min	A group activity will be done through origami sheet.		
Flipped video : 5 Min Explanation & Discussion by the teacher-10 Min	Teacher will collect response of starter and will show the Flipped video based on Vertically opposite angles. Vertically Opposite Angle Vertical angles are a pair of non-adjacent angles formed when two lines intersect. Vertical in this case means they share the same vertex (corner point), not the usual meaning of up-down.		

Worksheet (Peer Discussion) Followed by teacher explanation and board work : 10 Min	<i>Collaborative work: Students will do questions after discussing with their partner , Teacher will guide them to do.</i> Teacher will discuss answers on the board
Closure/ Plenary(Think Pair and Share) N.B: (5 Min)	Give an example for vertically opposite angles in your surroundings.
Home Learning	From book Assignment will be given
Resources	NCERT Book of Mathematics for Class VII Flipped video Lab activity using origami sheets



Khaitan Public School,Sahibabad

Class: VII	Subject: Mathematics	Day:4	Time duration:40 min
Name of the lesson/ unit	Ch-5 Lines and Angles		
Topic/lesson	Angles made by a transversal for non parallel and parallel sides		
Learning Objective	To be able to recognize and solve problems based on complementary , supplementary angles, linear pair, vertical angles and angles made by transversal.		
Expected learning outcomes:	Student will be able to • Define and identify interior and exterior portion of angle and parallel lines • Define Intersecting line , Parallel line , Point of intersection and Transversal. • Identify and Define Corresponding angle, alternate angle and co interior angle. • Angles formed by the parallel lines are equal(corresponding angle , alternate angle and co interior angle)		
Common misconception (if any):	• Students may believe that angle relationships formed by a transversal and parallel lines are also true for a transversal and any two lines • incorrectly assume all angles in a given figure • Students may not recognize that the line that is parallel to another or not.		
Prerequisite knowledge:	Knowledge of types of angles.		

Assessment of qualifying knowledge:	Differentiate between different types of angles (Board test & oral)
Transaction methodology	
Starter/ warm up: Questioning(Verbal) Flipped video (5 Min)	Oral questions will be asked related to intersecting, parallel line, perpendicular lines and point of intersection.
Explanation along with flipped video :10 Min Direct Teaching by explanation on board : <u>10 Mins</u>	Flipped video will be shown along with daily life examples of transversal . Teacher will explain the types of angles formed by transversal TYPES OF ANGLES FORMED BY PARALLEL LINES CUT BY TRANSVERSAL Angle 4 and Angle 6 are ALTERNATE INTERIOR ANGLES. Angle 3 and Angle 5 are ALTERNATE INTERIOR ANGLES. Alternate interior angles are a pair of angles that are in between the parallel lines and on opposite sides of the transversal. Alternate interior angles are congruent to each other. Alternate exterior angles are a pair of angles that are outside the parallel lines and on opposite sides of the transversal. Alternate exterior angles are congruent to each other. Angle 2 and Angle 8 are ALTERNATE EXTERIOR ANGLES. Angle 1 and Angle 7 are ALTERNATE EXTERIOR ANGLES. ScreenCast-@-Mathe.com
<u>Independent work followed by the board work-10 Min</u> Note book work	Students will do Questions from book independently . Teacher will discuss the solution on the board by calling individually students on the board.
Closure/ Plenary(Think Pair and Share) N.B: (5 Min)	Students will draw content map of the chapter
Home Learning	From book Assignment will be given
Resources	NCERT Book of Mathematics for Class VII Flipped video