

CLASS – X
LESSON PLAN
CHAPTER-8: INTRODUCTION TO TRIGONOMETRY

Unit	Geometry (Chapter 8: Introduction to Trigonometry)
Class Transaction	Total: 13 periods (approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge of right angled triangles. 2. Pythagoras Theorem 3. Basic calculation skills.
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. HW notebook
Objective	• Students would be able to calculate the distances and heights and make the proper relationships between sides and angles • To make students able to prove t-ratio relationships. • To be able to
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will know and develop the ability to</i> 1. Use Pythagoras Theorem in a right angled triangle. 2. Identify trigonometric ratios and apply them. 3. Use different identities to prove the given results. 4. Understand the underlying principles behind using the trigonometric relations, <u>SKILLS and COMPETENCIES -</u> <i>Students would be able to critically analyze the problems involving trigonometric ratios with the help of right angled triangle and prove the questions using suitable trigonometric identities in collaboration with others.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used :</u> Think pair and Share, Inquiry Based Learning, Inductive and Deductive learning, Discussion of Muddiest Point Think Pair and Share: In this activity, students think about a particular question individually, then they form pairs to discuss their answers. Following this, the results are shared in a large classroom discussion. Alternatively, two pairs of students can pair up to compare and discuss answers. This process forces students to think individually, and then allows them to analyze and clarify their response collaboratively. Brain Storming: In this activity, students are asked to generate ideas on a certain topic, category or question while facilitator facilitate and record the answers on the board. Inquiry Based Learning: Inquiry-based learning uses different approaches to learning, including small-group discussion and guided

	learning. Instead of memorizing facts and material, students learn by doing. This allows them to build knowledge through exploration, experience, and discussion. Inductive and Deductive Learning: In Inductive type students proceed from particular to general statement(example to formula) and in Deductive type students proceed from general to particular. Students are given formula and they solve problems using them. Muddiest Point: Check comprehension and identify confusion, what was most confusing about the material? Transaction would proceed in the following manner- <i>Story Boarding</i>-The class will start with the facilitator asking simple conceptual questions about how people in early ages could have found the heights of buildings and hills, without using advanced equipments... how could they make roads on hilly areas? Students would be asked to think and decide about any one strategy which medieval era man could have used to climb mountains and guess its height? Slowly, the facilitator would introduce the concept of right angled triangles, assuming all buildings to be perpendicular to the ground and hence moving further on to different base angles in a right angled triangle. <i>Introduction of the topic</i>- ppt and Digital Content would be shared <i>Guided practice followed by Independent Practice</i>- NCERT questions to be discussed in the classroom. Techniques to be used: Quiz Daily Practice Problem MCQ Peer Assessment Case Studies Lab Activities Any Other
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home	Independent Practice: Students would do the questions in their H.W

Work, Assignments	notebooks as mentioned in exercise. HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 marks On time submission.....1 mark Presentation/ Neatness.....1 mark Content.....3 marks It is also advised that the students come to the class with proper background knowledge of the topic under discussion. They can refer to the resources stated above.																				
Assessments	<table> <tr> <td>3 UNIT TESTS (20, 30, 30)</td><td>80 Marks</td></tr> <tr> <td>MID TERM EXAMINATION</td><td>80 Marks</td></tr> <tr> <td>HALF YEARLY EXAMINATION</td><td>80 Marks</td></tr> <tr> <td>PRE BOARD-I EXAMINATION</td><td>80 Marks</td></tr> <tr> <td>PRE BOARD-II EXAMINATION</td><td>80 Marks</td></tr> <tr> <td>ANNUAL BOARD EXAMINATION</td><td>80 Marks</td></tr> </table> PERIODIC TEST Average of the best two tests to be taken that will have a weightage of 10 marks. Best 2 Tests out of: Units tests, Midterm examination, Half Yearly examination. <table> <tr> <td>INTERNAL ASSESSMENT</td><td>20 Marks</td></tr> <tr> <td>• Periodical Test</td><td>10 Marks</td></tr> <tr> <td>• Note Book Submission</td><td>05 Marks</td></tr> <tr> <td>• Lab Practical</td><td>05 Marks</td></tr> </table>	3 UNIT TESTS (20, 30, 30)	80 Marks	MID TERM EXAMINATION	80 Marks	HALF YEARLY EXAMINATION	80 Marks	PRE BOARD-I EXAMINATION	80 Marks	PRE BOARD-II EXAMINATION	80 Marks	ANNUAL BOARD EXAMINATION	80 Marks	INTERNAL ASSESSMENT	20 Marks	• Periodical Test	10 Marks	• Note Book Submission	05 Marks	• Lab Practical	05 Marks
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Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: <i>For gifted students:</i> • Encouragement for referring other resources <i>For weak students:</i> • Buddy help to be provided • Provide grade-up classes <i>For differently abled students:</i> • Ignore spelling mistakes and formulae, if not written • Call parents at regular intervals • Provide grade-up classes																				

Marks	The weightage would be given by CBSE.
Assessment Questions	• If $\sec \theta - \tan \theta = 1/3$, then find the value of $(\sec \theta + \tan \theta)$. • If $\sin A + \sin^2 A = 1$, then find the value of $\cos^2 A + \cos^4 A$. • A ladder 15 metres long just reaches the top of a vertical wall. If the ladder makes an angle of 60° with the wall, find the height of the wall. • If $2 \sin^2 A - \cos^2 A = 2$, then find the value of A • Prove that $(\sin A + \cos A)(\tan A + \cot A) = \sec A + \operatorname{cosec} A$

DAY	ONE
Objective	Enhance ability to deal with measurement of sides of the triangle and angles of triangles developing the art of communication and critical thinking.
Assessment of qualifying knowledge	Quiz and knowledge testing on rational numbers and their operations.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and identify the Trigonometric ratios involving different sides of triangles.</i> <u>SKILLS and COMPETENCIES</u> <i>Students would be able to Reason effectively and critically between all ratios of Trigonometry.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used</u> : Story Boarding The facilitator would explain all the ratios and then make groups and one learner from each group would speak and write a point related to their understanding, on the board. This way entire class would revise the ratios and understand them collaboratively and effectively. Transaction would proceed in the following manner- <u>Anticipatory Set: 10 min</u> Facilitator will ask few questions to introduce the topic • What is a Pythagoras Theorem • What is the relation between sides of triangles and measurement of corresponding angles • Have they seen right triangles in their surroundings • Have they figured out how can the heights of buildings be measured? <u>Discussion of topic through Collaborative Learning: 15 min</u> <u>Inquiry based learning</u> (Critical Thinking and Problem Solving) Students would be asked to write calculate one side of right triangle if any of the two sides given. <u>Guided practice: 10 min</u> • The students will be shown a PPT and will be made acquainted of trigonometric ratios when lengths of sides are given in a right angled triangle. • The students will be told about the uses of the above in day to day life. • The students would be given practice on simple questions based on right angled triangles and would be given enough practice on basics of trigonometry. <u>Independent Practice</u>: Students will go through the solved examples before Ex 8.1 of NCERT text book.

	Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Oral Test (5 minutes)
DAY	TWO
Objective	Students will be able to express the relationship between the angles of right triangles and length of its sides through Trigonometric ratios in collaborative manner .
Assessment of qualifying knowledge	Written questions on involving measurement of sides of triangle and corresponding trigonometric ratio.
Learning Outcomes	KNOWLEDGE- <i>Students will know and analyse</i> that the values of the trigonometric ratios of an angle do not vary with the lengths of the sides of the triangle, if the angle remains the same. SKILLS and COMPETENCIES- <i>Students will be able to differentiate and classify</i> various types of Trigonometric Ratios, in collaboration with each other.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used :</u> Think pair and Share, Discussion of Muddiest Point Transaction would proceed in the following manner- Recapitulation: 5 min Brainstorming on the previously taught concept would be done. Discussion of topic through Collaborative Learning: 15 min (Critical Thinking, Collaboration) An oral quiz will be taken and students will be asked to identify various trigonometric ratio with given sides of right triangle and will be able to realize the fact that the values of the trigonometric ratios of an angle do not vary with the lengths of the sides of the triangle, if the angle remains the same. Guided practice: 15 min The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 8.1 in their notebook in the class

	with the help of their teacher. The teacher would ensure that each student tries to be independent at the work as well as be under the teacher's guidance. Independent Practice: Students will complete the remaining HW parts given in Exercise 8.1 in their Math HW notebook. Students who would find difficulty in solving the problem would solve with the help of their buddies. Closure: <u>5 min</u> A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks
Assessments	Oral quiz (5 minutes)
DAY	THREE
Objective	To solve the questions of Ex- 8.1 based on Sides of triangle and Trigonometric ratios with 100% accuracy
Assessment of qualifying knowledge	Written questions on calculating Trigonometric ratios if sides of triangle given.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will develop the ability to understand the relationship between sides of triangle and trigonometric ratios</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to critically apply the concepts in given situations and collaboratively realize the fact that if one trigonometric ratio is given others can be found using right Triangle concept</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used :</u> Think pair and Share, Inductive and Deductive learning Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Oral test on the previous concept would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical thinking) Exercise 8.1 would be discussed and students would solve different questions per group and then the questions would be crosschecked. Digital content would be used. The facilitator would take rounds and

	help students with their doubts. Guided Practice: 15 min The students will solve the questions from NCERT book of Exercise – 8.1 in their notebook in the class with the help of their teacher. The teacher would ensure that each student tries to be independent at the work as well as be under the teacher's guidance. Independent Practice: Students will complete the remaining HW parts given in Exercise 8.1 in their Math HW notebook. Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks as mentioned
Assessments	MCQ (5 minutes)
DAY	FOUR
Objective	To understand and know the Trigonometric Ratios of specific angles like 0° , 30° , 45° , 60° and 90°
Assessment of qualifying knowledge	Written test on use of values of trigonometric ratios of specific angles.
Learning Outcomes	KNOWLEDGE- <i>Students will develop the ability to understand that if one of the sides and any other part is given of a right triangle is known, the remaining sides and angles of triangle can be known with the help of trigonometric ratios</i> SKILLS and COMPETENCIES - <i>Students would be able to Critically apply the concepts in given situations and collaboratively realize the fact with the help of Pythagoras Theorem and Trigonometric ratios we can determine the corresponding sides and angles of triangle.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies Used : Inductive and Deductive learning, Discussion of Muddiest Point Transaction would proceed in the following manner- Recapitulation: 5 min Quick revision on the previous concept would be taken up. Discussion of topic through Collaborative Learning: 15 min (Creativity, Collaboration) Trigonometric Ratios of specific angles would be introduced to students. They will know how and which trigonometric ratio to be

	used in given situation. This would be discussed in detail with vivid examples. Guided Practice: <u>15 min</u> Trigonometric identities would be introduced and the students would be asked to prove them in the class under the supervision of the teachers. The facilitator would take rounds and help the students in calculating the trigonometric ratios values for specific angles. Independent Practice: Students will choose specific ratio for solving problems in view of its definition. Closure: <u>5 min</u> Discussion of muddiest point.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks
Assessments	Written test (5 minutes)
DAY	FIVE
Objective	To solve the questions of Ex- 8.2 based on specific angles and their Trigonometric ratios.
Assessment of qualifying knowledge	MCQ on values of Ratios on specific angles.
Learning Outcomes	<u>KNOWLEDGE</u>- Ability to visualize the values of different Trigonometric Ratios <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> Comprehend the values of ratio sin given problems through collaborative leaning process.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used</u> : Numbered Heads, Discussion of Muddiest Point Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Quick revision on the previous concept would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical Thinking, Collaboration) The students will solve the questions from NCERT book of Exercise – 8.2 in their notebook in the class with the help of their facilitator. Independent Practice: Students will complete the remaining HW parts given in Exercise 8.2 in their Math HW notebook. Closure: <u>5 min</u> Discussion of muddiest point. .

Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebook.
Assessments	MCQ (5 minutes)
DAY	SIX
Objective	To complete the problems given in Ex-8.2 with 100% accuracy.
Assessment of qualifying knowledge	Written test on drawing right angle triangle using Pythagoras theorem calculating values of different ratios
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> the geometrical representation of specific trigonometric ratios. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> Apply the given knowledge with 100 % accuracy and try to use the values of ratios of specific angles creatively.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used</u> : Inductive and Deductive learning, Discussion of Muddiest Point Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Oral test would be taken. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical Thinking) How to use Pythagoras theorem to calculate specific angles' values would be discussed in detail. Guided Practice: <u>15 min</u> The students will solve the questions from NCERT book of Exercise – 8.2 in their notebook in the class with the help of their facilitator. Independent Practice: Students will complete the remaining HW parts given in Exercise 8.2 in their Math HW notebook. Closure: <u>5 min</u> Summarization, preferably by a student, would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar

Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Written test (5 minutes)
DAY	SEVEN
Objective	To know and understand the relation between trigonometric ratios of complementary angles.
Assessment of qualifying knowledge	Written test on drawing right angle triangle using Pythagoras theorem and using ratios of complementary angles.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand The relation between Trigonometric Ratios of complementary angles and their application.</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> 1. Classify relationship between ratios of complementary angles with the knowledge of usage of Pythagoras theorem and critically think about its usage.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used</u> : Story Boarding, Think pair and Share, Inductive and Deductive learning, Discussion of Muddiest Point Transaction would proceed in the following manner- Recapitulation: 5 min Warming session would be taken. Discussion of topic through Collaborative Learning: 15 min (Critical thinking) Solved examples from the book would be taken up. Guided Practice: 20 min • The students will be explained trigonometric ratios of complementary angles. • Group activity on trigonometric ratios proofs will be done and discussed Independent Practice: Students will complete the group activity Closure: 5 min Summarization, preferably by a student, would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar

Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Written test (5 minutes)

DAY	EIGHT
Objective	To prove Trigonometric values of specific angles through group activity
Assessment of qualifying knowledge	Written test on Trigonometric values.
Learning Outcomes	<u>KNOWLEDGE</u> - Students will know the values of specific angles <u>SKILLS and COMPETENCIES</u> - Students would be able to 1. Critically visualize that whatever may be the measurement of sides of triangle but values of Trigonometric ratios does not vary. 2. Differentiate between different trigonometric ratios.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used :</u> Inductive and Deductive learning, Discussion of Muddiest Point Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> One-minute test would be taken. Discussion of topic through Collaborative Learning: <u>15 min</u> (Creativity) Different triangles (with specific angles) would be taken to prove the values of specific angles. Students would sit in groups and try to find the lengths of their sides by using ruler and also by using trigonometry. Guided Practice: <u>15 min</u> The facilitator would explain the group activity to compute the values of different trigonometric ratios for some specific angles. Closure: <u>5 min</u> Summarization, preferably by a student, would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self-Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Written test (5 minutes)
DAY	NINE
Objective	To solve the questions of Ex- 8.3 based on complementary angles and their Trigonometric ratios.
Assessment of qualifying knowledge	Oral test on values of complementary angles

Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and Demonstrate new ways to use the values of complementary angles to solve problems</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to Apply critically the knowledge meaningfully and creatively.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used :</u> Think pair and Share, Discussion of Muddiest Point Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Oral test would be taken. Discussion of topic through Collaborative Learning: <u>10 min</u> (Communication and critical thinking) Solved examples from the book would be taken up. Numbered Heads Strategy would be used to ask questions and get answers from learners. Guided Practice: <u>20 min</u> The teacher, as a facilitator, would explain the questions from Ex 8.3 would be taken up and collaborative approach towards them so that the facilitator would help them with their doubts. Independent Practice: Students will complete the remaining HW parts given in Exercise 8.3 in their Math HW notebook. Closure: <u>5 min</u> Summarization, preferably by a student, would be taken to check proper assimilation of the topic discussed..
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self-Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Oral test (5 minutes)
DAY	TEN
Objective	To solve the questions from NCERT book of Exercise – 8.3
Assessment of qualifying knowledge	MCQ test
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and Demonstrate new ways to use the values of complementary angles to solve problems with 100 % accuracy.</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to Apply critically the knowledge meaningfully and creatively.</i>

Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used :</u> Inductive and Deductive learning, Discussion of Muddiest Point Transaction would proceed in the following manner- <u>Recapitulation: 5 min</u> One minute test would be taken. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical and creative thinking) Identification of ratios of complementary ratios would be done. <u>Guided Practice: 15 min</u> The facilitator would explain the questions from Ex 8.3 with a collaborative approach towards them. <u>Independent Practice:</u> Students will complete the remaining HW parts given in Exercise 8.3 in their Math HW notebook. <u>Closure: 5 min</u> Summarization, preferably by a student, would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self-Study, Home Work, Assignments	<u>Independent Practice:</u> Students would do the given questions in their H.W. notebooks.
Assessments	MCQ test (5 minutes)
DAY	ELEVEN
Objective	To prove Trigonometric Identities with 100 % accuracy
Assessment of qualifying knowledge	Written test on Trigonometric Identities
Learning Outcomes	<u>Apply</u> the concepts and <u>evaluate</u> the given questions with 90% accuracy <u>KNOWLEDGE-</u> <i>Students will deductively understand the proofs of different identities and their application thereof.</i> <u>SKILLS and COMPETENCIES -</u> <i>Students would be able to Critically analyze the use of Standard identities to prove other identities.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever	<u>Strategies Used :</u> Inductive and Deductive learning, Numbered Heads, Discussion of Muddiest Point Transaction would proceed in the following manner- <u>Recapitulation: 5 min</u> Oral Test would be taken up.

applicable, and can use any other too.)	Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical Thinking) Proof of Standard identities using right angle triangle Guided Practice: <u>15 min</u> • Trigonometric relations using identities will be explained. • Proving LHS equals to RHS will be explained relating trigonometric ratios. Independent Practice: Students will practice the use of Identities Closure: <u>5 min</u> Summarization, preferably by a student, would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self-Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	MCQ test (5 minutes)
DAY	TWELVE
Objective	To solve the questions from NCERT book of Exercise – 8.4 involving the identities with 100% accuracy.
Assessment of qualifying knowledge	Oral Test
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> 1. The standard identities 2. Use of these identities to prove other identities. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> Critically prove Trigonometric Identities.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used :</u> Think pair and Share, Inductive and Deductive learning, Discussion of Muddiest Point Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Oral Test would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical Thinking) Usage of Standard Identities for other identities. Guided Practice: <u>15 min</u> The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 8.4 in their notebook in the class with the help of their teacher.

	Independent Practice: Students will complete the remaining HW parts given in Exercise 8.4 in their Math HW notebook. Closure: <u>5 min</u> Summarization, preferably by a student, would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar DPSG Spiral
Self-Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks
Assessments	Quiz (5 minutes)
DAY	THIRTEEN
Objective	To continue the questions from NCERT book of Exercise – 8.4 involving the identities.
Assessment of qualifying knowledge	Oral test of identities
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> 1. The standard identities 2. Use of these identities to prove other identities. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> Critically prove Trigonometric Identities.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	<u>Strategies Used :</u> Inductive and Deductive learning, Discussion of Muddiest Point Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Oral Test would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> Application of Trigonometric Identities. Guided Practice: <u>15 min</u> (Communication) The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 8.4 in their notebook in the class with the help of their teacher. Independent Practice: Students will complete the remaining HW parts given in Exercise 8.4 in their Math HW notebook. Closure: <u>5 min</u> Summarization would be taken to check proper assimilation of the topic discussed.
Resources	Text Book:

	NCERT text book for Mathematics Reference Book CBSE Exemplar
Self-Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Oral test (5 minutes)