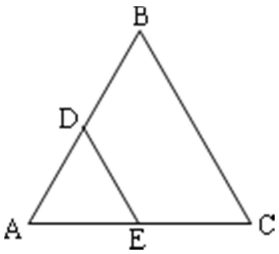


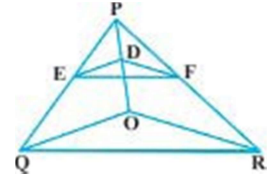
CLASS – X
LESSON PLAN
CHAPTER-6: TRIANGLES

Unit	Geometry (Chapter 6: Triangles)
Class Transaction	Total: 18 periods (approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge of triangles 2. Knowledge of types of triangles, Basic Proportionality Theorem, Similarity and its criteria, Pythagoras Theorem 3. Interpretation of various types of triangles.
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. Group Discussion 4. HW notebook 5. FA Activities
Objective	Students would be able to identify the various types of triangles, Basic Proportionality Theorem, Similarity of triangles, their criteria and Pythagoras Theorem.
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will know and understand</i> 1. Various types of Triangles 2. Basic Proportionality Theorem and its Converse. 3. Similarity of Triangles and its various criteria. 4. Relation between similarity and area of two triangles.. 5. Pythagoras Theorem. 6. Other related results. <u>SKILLS-</u> <i>Students would be able to critically and collaboratively</i> 1. Solve geometrical problems 2. Prove the theorems and results 3. Find area of combination figures involving triangles 4. Solve complex questions based on the topics 5. Use analytical skills to visualize the given scenario and use the concepts learnt in everyday problems. 6. Use synthetic skills to solve problems.
Transaction Methodology (The teacher can use the mentioned techniques,	Strategies Used : Inductive Deductive Reasoning, Brain Storming, Muddiest Point Discussion 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.

wherever applicable, and can use any other too.)	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. 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>Brain Storming</i>-The class would start with a discussion on what the students have already learnt in the previous classes and hence what is it that they would learn now. They would also be told the significance of the topic that they would be studying. <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 Work, Assignments	Independent Practice: Students would do the some questions from NCERT in their H.W. notebooks H.W. 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	Through Pen Paper Test Students will be assessed creatively and critically <table> <tr> <td>4 UNIT TESTS</td><td>20 Marks each</td></tr> <tr> <td>HALF YEARLY EXAMINATION</td><td>80 Marks</td></tr> <tr> <td>ANNUAL BOARD EXAMINATION</td><td>80 Marks</td></tr> </table> INTERNAL ASSESSMENT 10 Marks - Note Book Submission 05 Marks - Lab Practical (Subject Enrichment) 05 Marks Through lab Practical Students are assessed for Collaboration, Character building, Character Building	4 UNIT TESTS	20 Marks each	HALF YEARLY EXAMINATION	80 Marks	ANNUAL BOARD EXAMINATION	80 Marks
4 UNIT TESTS	20 Marks each						
HALF YEARLY EXAMINATION	80 Marks						
ANNUAL BOARD EXAMINATION	80 Marks						
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 - Encourage and motivate them at every level.						
Marks	The weightage would be given by CBSE.						
Assessment Questions	- In fig.1 , $DE \parallel BC$, if $BD = 3\text{cm}$, $AD = 2\text{ cm}$, $AE = 4\text{ cm}$, then find the value of EC  - AD is an altitude of an equilateral triangle ABC. On AD as base, another equilateral triangle ADE is constructed. Prove that $\text{area}(\triangle ADE) : \text{area}(\triangle ABC) = 3 : 4$.						

- ABC is a right triangle right angled at C. Let $BC = a$, $CA = b$, $AB = c$ and let p be the length of perpendicular from C on AB. Prove that $cp = ab$.
- In figure 2 , DE parallel to OQ and DF parallel to OR, Show that EF



parallel to QR

- O is the point of intersection of the diagonals AC and BD of a trapezium ABCD with AB parallel to DC. Through O, a line segment PQ is drawn parallel to AB meeting AD in P and BC in Q. Prove that $PO = QO$

DAY	ONE
Objective	Compare the various cases of Congruence and Similarity with 100 % accuracy.
Assessment of qualifying knowledge	Quiz and knowledge testing on congruence and triangles.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and identify</i> the concept of Similarity and Differentiation with Congruence <u>SKILLS and COMPETENCIES</u> <i>Students would be able to Reason effectively and critically</i> differentiate congruence and similarity.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Anticipatory Set: 10 min Strategy used: Muddiest Point Discussion, Think Pair and Share • The students will be shown pictures depicting difference between similarity and congruency. • The students will be told about the criteria of similarity and its applications. Discussion of topic through Collaborative Learning: 15 min <u>Inquiry based learning</u> (Critical Thinking and Problem Solving) Students would be asked to write different type of congruence criteria and see if the same holds for equilateral triangles too and then visualize the difference between congruence and similarity. Guided practice: 10 min The students will solve the questions from NCERT book, solved examples before Ex 6.1 in their notebook in the class with the help of their facilitator. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will go through the solved examples before Ex 6.1 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 as mentioned in the monthly planner.
Assessments	Oral Test (5 minutes)
DAY	TWO
Objective	Evaluate the different questions and be able to solve them with 100% accuracy

Assessment of qualifying knowledge	Written questions on solving questions effectively from the book.
Learning Outcomes	<u>KNOWLEDGE</u> - <i>Students will know and</i> Demonstrate the ability to Solve questions with <u>SKILLS and COMPETENCIES</u> - <i>Students will be able to</i> differentiate and classify various types of triangles, in collaboration with each other.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Recapitulation: 5 min Strategy used : Brain Storming 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 congruence criteria and differentiate them with similar triangles. Guided practice: 15 min The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 6.1 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 6.1 in their Math HW notebook. Students who face difficulty in solving the problem would solve with the help of their buddies. 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 quiz (5 minutes)
DAY	THREE
Objective	Evaluate the different questions and be able to solve them with 100% accuracy
Assessment of qualifying knowledge	Written questions on solving questions effectively from the book.
Learning Outcomes	<u>KNOWLEDGE</u> - <i>Students will know and</i> Demonstrate the ability to Solve questions <u>SKILLS and COMPETENCIES</u> - <i>Students will be able to</i> differentiate and classify various types of triangles, in collaboration with each other.
Transaction	Transaction would proceed in the following manner

Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Recapitulation: 5 min Strategy used : One minute test 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 congruence criteria and differentiate them with similar triangles. Guided practice: 15 min The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 6.1 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 6.1 in their Math HW notebook. Students who would face difficulty in solving the problem would solve with the help of their buddies. 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	MCQ (5 minutes)
DAY	FOUR
Objective	To prove that the line drawn parallel to one side of a triangle intersecting the other two sides divides them in the same ratio., through a hands on activity, critically .
Assessment of qualifying knowledge	Written test on identifying whether the given number is rational or irrational.
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will develop the ability to understand and apply Basic Proportionality Theorem.</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to experimentally prove Basic Proportionality Theorem and critically apply the concepts in given situations and collaboratively realize its application in various triangles.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can	Transaction would proceed in the following manner- Recapitulation: 5 min Strategy Used: Inductive Reasoning Quick revision on the previous concept would be taken up. Discussion of topic through Collaborative Learning: 15 min (Creativity, Collaboration)

use any other too.)	Inductive Reasoning to be used for explaining Basic Proportionality Theorem would be used and students would be given different triangles to check if the theorem holds. Guided Practice: 15 min The students will solve the questions from NCERT book, solved examples before Ex 6.2 in their notebook in the class with the help of their facilitator. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will find various triangles and situations in view of its definition. Closure: 5 min 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 prove that the line drawn parallel to one side of a triangle intersecting the other two sides divides them in the same ratio., through a hands on activity, critically .
Assessment of qualifying knowledge	Written test on identifying whether the given number is rational or irrational.
Learning Outcomes	<u>KNOWLEDGE</u>- Students will develop the ability to Basic Proportionality Theorem. <u>SKILLS and COMPETENCIES</u> - Students would be able to experimentally prove Basic Proportionality Theorem and critically apply the concepts in given situations and collaboratively realize its application in various triangles.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategy Used : Hands On Experimentation Recapitulation: 5 min Quick revision on the previous concept would be taken up. Discussion of topic through Collaborative Learning: 15 min (Critical Thinking, Collaboration) Hands on Activity: Students to work in groups of four. Each student to work on a different type of triangle, namely, acute, obtuse and right angled triangle to verify Basic Proportionality Theorem. Fourth student to compile and state the inference drawn. Students as a group, would present their work and answer the

	questions that would follow. Guided Practice: 15 min The students will try to perform the activity independently too and ask the facilitator for any doubts. Independent Practice: Students will find various situations for the theorem to hold. Closure: 5 min 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	MCQ (5 minutes)
DAY	SIX
Objective	Evaluate the different questions and be able to solve them with 100% accuracy
Assessment of qualifying knowledge	Written test on Proving Basic Proportionality theorem
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> usage of Basic Proportionality theorem and its understanding. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> 1. Apply the given knowledge with 100 % accuracy 2. Critically study Basic Proportionality Theorem and apply it in given situations
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used : Deductive Reasoning Recapitulation: 5 min Oral test would be taken. Discussion of topic through Collaborative Learning: 15 min (Critical Thinking) How to use Basic proportionality Theorem to various situations in triangles. Guided Practice: 15 min The students will solve the questions from NCERT book of Exercise – 6.2 in their notebook in the class with the help of their facilitator. Independent Practice: Students will complete the remaining HW parts given in Exercise 6.2 in their Math HW notebook. 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 as mentioned in the monthly planner.
Assessments	Written test (5 minutes)
DAY	SEVEN
Objective	Evaluate the different questions and be able to solve them with 100% accuracy
Assessment of qualifying knowledge	Written test of some questions from Exemplar
Learning Outcomes	<u>KNOWLEDGE</u>- Students will know and understand the situations where Basic Proportionality Theorem can be used and where it cannot be. <u>SKILLS and COMPETENCIES</u> - Students would be able to 1. Classify if the given situation calls for usage of the given theorem or its converse. 2. Identify that Mid Point Theorem is an off shoot of the Basic Proportionality Theorem.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategy Used : Think Pair and Share Recapitulation: 5 min Oral test would be taken. Discussion of topic through Collaborative Learning: 15 min (Critical Thinking) How to use Basic proportionality Theorem to various situations in triangles. Guided Practice: 15 min The students will solve the questions from NCERT book of Exercise – 6.2 in their notebook in the class with the help of their facilitator. Independent Practice: Students will complete the remaining HW parts given in Exercise 6.2 in their Math HW notebook. 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	Evaluate the different questions and be able to solve them with 100% accuracy
Assessment of	Written test on solving exercise 6.2 from NCERT.

qualifying knowledge	
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> the various kind of questions that can come from the given topic. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> • Critically visualize the usage of Basic Proportionality Theorem • Differentiate between the theorem and its converse.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used: Think Pair and Share 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 Basic proportionality Theorem to various situations in triangles. Guided Practice: <u>15 min</u> The students will solve the questions from NCERT book of Exercise – 6.2 in their notebook in the class with the help of their facilitator. Independent Practice: Students will complete the remaining HW parts given in Exercise 6.2 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	NINE
Objective	Evaluate the different questions and be able to solve them with 100% accuracy
Assessment of qualifying knowledge	Written test on solving exercise 6.2 from NCERT.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> the various kind of questions that can come from the given topic. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> • Critically visualize the usage of Basic Proportionality Theorem • Differentiate between the theorem and its converse.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used : Brain Storming Recapitulation: <u>5 min</u> Oral test would be taken. Discussion of topic through Collaborative Learning: <u>10 min</u> (Communication and critical thinking)

	The students will be explained criterions of triangles AA or AAA, SSS, SAS. The students will be asked to sit in groups and prove questions using area of similar triangles and the square of the ratio of their sides. Each student per group would come to the fore and explain the question to the rest of the class, with the facilitator standing to extend help to the pupil. Guided Practice: <u>20 min</u> The teacher, as a facilitator, would explain the questions from Ex 6.3 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 6.3 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	Evaluate the different questions and be able to solve them with 100% accuracy
Assessment of qualifying knowledge	Written test on solving exercise 6.3 from NCERT.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand different Similarity Criteria</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> • Critically visualize the different Similarity Criteria • Differentiate between them and their application
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used : Brain storming Recapitulation: <u>5 min</u> Oral test would be taken. Discussion of topic through Collaborative Learning: <u>10 min</u> (Communication and critical thinking) The students will be explained criterions of triangles AA or AAA, SSS, SAS. The students will be asked to prove questions using area of similar triangles and the square of the ratio of their sides Guided Practice: <u>20 min</u> The teacher, as a facilitator, would explain the questions from Ex 6.3 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 6.3 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 as mentioned
Assessments	MCQ test (5 minutes)
DAY	ELEVEN
Objective	Compare the various criteria and justify the use of a certain criterion in a given situation.
Assessment of qualifying knowledge	Written test on various criteria for similarity like AAA, SAS, SSS.
	Apply the concepts and evaluate the given questions with 90% accuracy
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will deductively understand</i> 1. Different criteria for similarity. 2. Understand various situations where the criteria can be used effectively. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to Critically visualize situations where different criteria can be used and applied in further situations.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used: Deductive Reasoning Recapitulation: 5 min Oral test would be taken. Discussion of topic through Collaborative Learning: 10 min (Critical thinking) The students will be explained criterions of triangles AA or AAA, SSS, SAS. The students will be asked to prove questions using area of similar triangles and the square of the ratio of their sides Guided Practice: 20 min The teacher, as a facilitator, would explain the questions from Ex 6.3 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 6.3 in their Math HW notebook. 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	MCQ test (5 minutes)

DAY	TWELVE
Objective	Students would be able to attempt questions and apply knowledge with 90% accuracy.
Assessment of qualifying knowledge	Oral test on laws of Criteria for similarity
	Apply the concepts and evaluate the given questions with 90% accuracy
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> the theorem about ratio of sides of Similar triangles <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> • Critically observe the pattern in Similar Triangles vis a vis their sides • Effectively prove the theorem related to the sides of Similar Triangles
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used : Think Pair and Share Recapitulation: 5 min Oral Test would be taken up. Discussion of topic through Collaborative Learning: 15 min (Critical Thinking) Relation between ratio of areas of two similar triangles and square of their corresponding sides will be explained through various examples Guided Practice: 15 min The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 6.4 in their notebook in the class with the help of their teacher. Independent Practice: Students will complete the remaining HW parts given in Exercise 6.4 in their Math HW notebook. 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	Quiz (5 minutes)
DAY	THIRTEEN
Objective	Students would be able to attempt questions and apply knowledge with 90% accuracy.
Assessment of qualifying knowledge	Oral test on laws of Criteria for similarity
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> 1. Ratio and relation between areas of similar triangles <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> 1. Critically apply and extend previous knowledge to newer concepts
Transaction Methodology	Transaction would proceed in the following manner- Strategies Used : Brain Storming

(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Recapitulation: <u>5 min</u> Oral Test would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical Thinking) Relation between ratio of areas of two similar triangles and square of their corresponding sides will be explained through various examples Guided Practice: <u>15 min</u> The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 6.4 in their notebook in the class with the help of their teacher. Independent Practice: Students will complete the remaining HW parts given in Exercise 6.4 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
Self-Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks
Assessments	Oral test (5 minutes)
DAY	FOURTEEN
Objective	Compare and analyze the relation between areas of two similar triangles
Assessment of qualifying knowledge	Oral test on various concepts being used in chapter.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> various concepts being applied on similar triangles <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> Recall the concepts and terms being used in chapter to solve the questions and Critically Apply and solve the questions
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used : Think pair and Share Recapitulation: <u>5 min</u> Oral Test would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical Thinking) Relation between ratio of areas of two similar triangles and square of their corresponding sides will be explained through various examples Guided Practice: <u>15 min</u> The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 6.4 in their notebook in the class with the help of their teacher. Independent Practice: Students will complete the remaining HW parts given in Exercise 6.4 in their Math HW notebook.

	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	Oral test (5 minutes)
DAY	FIFTEEN
Objective	Analyze how Pythagoras Theorem holds for various forms of triangles
Assessment of qualifying knowledge	Oral test on proof of Pythagoras theorem
Learning Outcomes	<u>KNOWLEDGE</u> - <i>Students will know and understand</i> Various proofs of Pythagoras Theorem, especially the one using similarity.. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> - Recall the concepts and terms being used in chapter to solve the questions. Critically Apply and solve the questions
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used : Muddiest point Discussion Recapitulation: 5 min Oral Test would be taken up. Discussion of topic through Collaborative Learning: 10 min (Critical) The students will be explained to Pythagoras theorem and its proof. - They will then calculate the height of the ladder or the wall based on the theorem. - The students will determine which of them are right triangles from the lengths of the sides of the triangles. Guided Practice: 20 min The teacher would collaboratively ask students to solve questions from Ex 6.5 from NCERT. Independent Practice: Students would try given questions from NCERT as homework in their HW notebooks 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	Oral test (5 minutes)
DAY	SIXTEEN
Objective	Apply the concepts and Evaluate the given questions with 90% accuracy
Assessment of qualifying knowledge	Surprise test of Ex 6.5 from the text book
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> various techniques to be used for solving Pythagoras Theorem and its usage. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> 1. Recall the concepts and terms being used in chapter to solve the questions. 2. Critically Apply and solve the questions
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used: Deductive Reasoning Recapitulation: 5 min Oral Test would be taken up. Discussion of topic through Collaborative Learning: 10 min (Critical) The students will be explained to Pythagoras theorem and its proof. Guided Practice: 20 min The teacher would collaboratively ask students to solve questions from Ex 6.5 from NCERT. Independent Practice: Students would do the designated questions I their HW notebooks 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	Oral test (5 minutes)
DAY	SEVENTEEN
Objective	Apply the concepts and Evaluate the given questions with 90% accuracy
Assessment of qualifying knowledge	Surprise test of Ex 6.5 from the text book
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> various techniques to be used for solving Pythagoras Theorem and its usage. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> 1. Recall the concepts and terms being used in chapter to solve the questions.

	2. Critically Apply and solve the questions
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Strategies Used: Think pair and Share Recapitulation: <u>5 min</u> Oral Test would be taken up. Discussion of topic through Collaborative Learning: <u>10 min</u> (Critical) The students will learn application of Pythagoras Theorem in different questions. Guided Practice: <u>20 min</u> The teacher would collaboratively ask students to solve questions from Ex 6.5 from NCERT. Independent Practice: Students would do HW questions from NCERT 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)