

CLASS – VI
LESSON PLAN
CHAPTER-4: BASIC GEOMETRIC IDEAS

Unit	Ch 4 Basic Geometric ideas.
Class Transaction	Total: 6 periods (approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge of points , intersecting lines 2. Knowledge of parallel lines, ray, polygons angles, triangles quadrilaterals 3. Knowledge of Circle, radius, diameter, sector, segment , chord , arc
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. HW notebook
Objective	Students would be able to identify points , intersecting lines parallel lines and properties of triangles and quadrilaterals, thereby inculcating competencies like collaboration, critical thinking and creativity
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will develop the ability to understand</i> 1. Intersecting lines. 2. Curves and Quadrilaterals. 3. Circles and terms related to circles <u>SKILLS and COMPETENCIES</u>- <i>Students would be able to</i> 1. Develop the ability to analyze and differentiate between intersecting lines and parallel lines 2. Identifying different types of curves and develop critical thinking and collaboration in the process. 3. Recognize and identify opposite/ adjacent sides/ angles of a quadrilateral.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	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 given questions 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 10 marks On time submission.....2 mark Presentation/ Neatness.....2 mark Content.....6 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 20 Marks - Note Book Submission 10 Marks - Lab Practical (Subject Enrichment) 10 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	Q1. Fill in the blanks. (i) A line segment has _____ end points. (ii) Two sides of a polygon having a common end point are called _____ sides. (iii) A polygon having four sides is called _____. (iv) A closed figure formed by three non -collinear points is called _____. (v) A line segment joining any two points on the circle is called a _____. Q2. How many end points does a ray have? Q3. What do we call the meeting point of a pair of adjacent sides of a polygon? Q4. Name the longest chord of a circle? Q5. If the length of a line segment AB = 3 cm then find the length of 2AB.

DAY	ONE
Objective	Enhance ability to accurately recognize and use appropriate terminology related to line, line segment and ray and 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>- Students will know and identify points, line, line segments and ray. <u>SKILLS and COMPETENCIES</u> Students would be able to Reason effectively and critically differentiate between line, line segment and ray.

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 A digital content will be show and Facilitator will ask few questions to introduce the topic • What is a point? • What is a line? • What are intersecting lines? • What is a ray? Discussion of topic through Collaborative Learning: 15 min <u>Inquiry based learning</u> (Critical Thinking and Problem Solving) Students would be ask to identify where they see line, line segment and ray around them. The facilitator would take rounds and ensure that each learner is engaged. Guided practice: 10 min The students will solve the questions from NCERT Ex 4.1 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 do the remaining parts of Ex 4.1 in their homework 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 in the monthly planner.
Assessments	Oral Test (5 minutes)
DAY	TWO
Objective	Students will be able to identify the difference between • Curves and Polygons. • interior and exterior points of a figure in collaborative manner.
Assessment of qualifying knowledge	Independent Practice.
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will know and Differentiate, Demonstrate</i> the interior and exterior points of a curves and polygons. <u>SKILLS and COMPETENCIES-</u> <i>Students will be able to identify and represent</i> interior and exterior points of a curves and polygons 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 Brainstorming on the previously taught concept would be done. Discussion of topic through Collaborative Learning: 15 min (Critical Thinking, Collaboration) With the help of digital content facilitator will explain and demonstrate the curves, polygons, interior and exterior points. Guided practice: 15 min The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 4.2 in their notebook in the class with the help of their facilitator. The facilitator 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 of Exercise 4.2 in their Math HW notebook. Students who would face difficulty in solving they 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	To identify and draw angles with different conditions.
Assessment of qualifying knowledge	Independent practice.
Learning Outcomes	KNOWLEDGE- <i>Students will develop the ability to understand and draw different angles with different conditions.</i> SKILLS and COMPETENCIES - <i>Students would be able to critically apply the concepts in given situations collaboratively</i>
Transaction Methodology (The teacher can use the mentioned	Transaction would proceed in the following manner- Recapitulation: 5 min A quick recap can be taken to assess the previous knowledge. Discussion of topic through Collaborative Learning: 15 min

techniques, wherever applicable, and can use any other too.)	(Critical thinking) A digital content will be shown Facilitator will explain and demonstrate the same to explain the topic. Exercise 4.3 would be discussed and students would solve different questions per group and then the questions would be crosschecked. The facilitator would take rounds and help students with their doubts. Guided Practice: <u>15 min</u> The students will solve the questions from NCERT book of Exercise – 4.3 in their notebook in the class with the help of their facilitator. The facilitator 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 of Exercise 4.3 in their homework notebook. 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	Independent Practice.
DAY	FOUR
Objective	To identify and draw triangles and to know about its properties.
Assessment of qualifying knowledge	Independent practice.
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will develop the ability to understand triangles in particular.</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to critically apply the concepts in given situations collaboratively</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever	Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> A quick recap can be taken to assess the previous knowledge. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical thinking) A digital content will be shown

applicable, and can use any other too.)	Facilitator will explain and demonstrate the same to explain the topic. Exercise 4.4 would be discussed and students would solve different questions per group and then the questions would be crosschecked. 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 – 4.4 in their notebook in the class with the help of their facilitator. The facilitator 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 of Exercise 4.4 in their homework 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.
Assessments	Independent Practice.
DAY	FIVE
Objective	To identify and draw quadrilaterals and to know about its properties.
Assessment of qualifying knowledge	Independent practice.
Learning Outcomes	KNOWLEDGE- <i>Students will develop the ability to understand quadrilaterals in particular.</i> SKILLS and COMPETENCIES - <i>Students would be able to critically apply the concepts in given situations collaboratively</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- Recapitulation: 5 min A quick recap can be taken to assess the previous knowledge. Discussion of topic through Collaborative Learning: 15 min (Critical thinking) A digital content will be shown Facilitator will explain and demonstrate the same to explain the topic.

	Exercise 4.5 would be discussed and students would solve different questions per group and then the questions would be crosschecked. 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 – 4.5 in their notebook in the class with the help of their facilitator. The facilitator 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 of Exercise 4.5 in their homework 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.
Assessments	Independent Practice.
DAY	SIX
Objective	To identify terms related to circles and represent them accurately.
Assessment of qualifying knowledge	Independent practice + LAB ACTIVITY.
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will develop the ability to represent the Radius, diameter, arc, segment, sector in a circle.</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> <i>Critically apply the concepts of various terminologies and collaboratively represent in a circle.</i> <i>Comprehend various parts of circle.</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- Recapitulation: 5 min Quick revision on the previous concept would be taken up. Discussion of topic through Collaborative Learning: 15 min (Creativity, Collaboration) With the help of digital content facilitator will explain and demonstrate the parts of circle. Learners would be able to draw various terms in a circle.

	Guided Practice: <u>15 min</u> The students will solve the questions from NCERT book, Ex 4.6 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 be able to represent different parts in view of its definition. Closure: <u>5 min</u> Discussion on the concept of parts of circle.
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	Independent practice + LAB ACTIVITY.