

CLASS – VII
LESSON PLAN
CHAPTER-3: DATA HANDLING

Unit	DATA HANDLING
Class Transaction	Total: 6 periods (approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Knowledge of graphs 2. Knowledge of central tendency
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. HW notebook
Objective	Students will be able to record data, organizing, grouping and then interpreting and representing information as circle, graph and pie chart, relating Chance and Probability to real life thereby inculcating competencies like collaboration, critical thinking and creative thinking.
Learning Outcomes	KNOWLEDGE- <i>Students will develop the ability to understand</i> 1. The different methods of plotting the information on graphs. 2. The method of comparing the graphs. SKILLS and COMPETENCIES-<i>Students would be able to</i> 1. Develop the ability to analyze the different types of graphs. 2. Plot the information on graphs and develop critical thinking and collaboration in the process.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1,D3 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	
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks from their course book. 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 4 UNIT TESTS 20 Marks each HALF YEARLY EXAMINATION 80 Marks ANNUAL BOARD EXAMINATION 80 Marks 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	
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	Q1	When two coins are tossed , find the probability that both coins will land with heads –up?
	Q2	A dice is rolled. Find the probability of getting a number less than 4.
	Q3	A dice is thrown. What is the probability of getting : (a) A prime number.

		(b) An even number (c) An odd number (d) A factor of 6 (e) A multiple of 1 (f) Number 7 (g) Number from 1 to 6.
	Q4	Find the value of x, if the mean of the following data is 9. 12, 5, 3, 18, 10, 17, x, 6, 6. Also find the range of the data.
	Q5	Find the mean, mode and median of the following: 38, 40, 32, 37, 38, 42, 52, 49, 46, 36, 35, 38, 43, 46, 43
	Q6	A dice was thrown 10 times and the following outcomes were recorded: 5,1,2,5,4,3,5,6,1,6 Prepare a frequency table and find the mean, mode and median.

DAY	ONE
Objective	Enhance ability to accurately plot the given information on the appropriate

	graph.
Assessment of qualifying knowledge	Quiz testing to find out the meaning and usage of different graphical terms.
Learning Outcomes	KNOWLEDGE- <i>Students will know and identify the various measures of central tendency.</i> SKILLS and COMPETENCIES <i>Students would be able to think creatively and plot the collected info on bar graph and histogram.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1,D3 Competency Developed : Critical thinking, Collaboration Transaction would proceed in the following manner- Anticipatory Set: 10 min Facilitator will ask few questions to introduce the topic • What is data? • What is frequency? • What is range, mean? Discussion of topic through Collaborative Learning: 15 min <u>Inquiry based learning</u> (Critical Thinking and Problem Solving) Class Activity: Collecting information about the student residents of different areas Arranging the information i.e. Data in tabular form using tally marks to find the frequency and find the highest and lowest observation. Guided practice: 10 min The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 3.1 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 of Exercise 3.1 in their Math HW notebook. Students who would 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 from their course book.
Assessments	Oral Test (5 minutes)
DAY	TWO
Objective	Enhance ability to accurately plot the given information on the appropriate graph.
Assessment of qualifying knowledge	Written questions on finding out the frequency of data values and plotting.
Learning Outcomes	KNOWLEDGE- <i>Students will know and identify the various, measures of</i>

	central tendency. <u>SKILLS and COMPETENCIES</u> Students would be able to think creatively and plot the collected information on bar graph and histogram.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1,D3 Competency Developed : Critical; thinking, Collaboration 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 <u>Inquiry based learning</u> (Critical Thinking and Problem Solving) Further practice and discussion of various questions of bar graph and histogram Guided practice: 10 min The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 3.1 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 of Exercise 3.1 in their Math HW notebook. Students who would 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 from their course book.
Assessments	Oral quiz (5 minutes)
DAY	THREE
Objective	To solve the questions of Ex- 3.2 based on mode and median
Assessment of qualifying knowledge	Written questions on finding the information and plotting on pie chart.
Learning Outcomes	<u>KNOWLEDGE-</u> Students will know and identify the information to be represented through single and double bar graph. <u>SKILLS and COMPETENCIES</u> Students would be able to think creatively and plot the collected info on pie chart and draw conclusions from the same.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can	Strategies used- Muddiest point discussion Dimensions Of Learning- D1,D3 Transaction would proceed in the following manner- Recapitulation: 5 min Oral test on the previous concept would be taken up.

use any other too.)	Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical thinking) Exercise 3.2 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: <u>15 min</u> The students will solve the questions from NCERT book of Exercise – 3.2 Q2,3 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 of Exercise 3.2 in their Math HW 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 from their course book.
Assessments	MCQ (5 minutes)
DAY	FOUR
Objective	Enhance ability to accurately plot the given information on the appropriate graph.
Assessment of qualifying knowledge	Written questions on finding out the frequency of data values and plotting.
Learning Outcomes	<u>KNOWLEDGE</u>- Students will know and identify when to use mode and median <u>SKILLS and COMPETENCIES</u> Students would be able to think creatively and plot the collected info on bar graph.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1,D3 Competency Developed : Critical; thinking, Collaboration Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Brainstorming on the previously taught concept would be done. Discussion of topic through Collaborative Learning: <u>15 min</u> Inquiry based learning (Critical Thinking and Problem Solving) Further practice and discussion of various questions of bar graphs. Guided practice: <u>10 min</u> The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise – 3.2 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 of Exercise 3.2 in their Math HW notebook. Students who would 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 from their course book.
Assessments	Oral quiz (5 minutes)
DAY	FIVE
Objective	To solve the questions of Ex- 3.3 based on double bar graphs
Assessment of qualifying knowledge	Written questions on finding the information on bar graphs
Learning Outcomes	<u>KNOWLEDGE</u>- Students will know and identify the information to be represented through single and double bar graph. <u>SKILLS and COMPETENCIES</u> Students would be able to think creatively and plot the collected info on pie chart and draw conclusions from the same.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Muddiest point discussion Dimensions Of Learning- D1,D3 Transaction would proceed in the following manner- Recapitulation: 5 min Oral test on the previous concept would be taken up. Discussion of topic through Collaborative Learning: 15 min (Critical thinking) Exercise 3.3 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 – 3.3 Q2,3 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 of Exercise 3.3 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 from their course book.

Assessments	MCQ (5 minutes)

DAY	SIX
Objective	To develop a deep understanding of probability
Assessment of qualifying knowledge	Written test on questions related to probability.
Learning Outcomes	KNOWLEDGE- <i>Students will develop the ability to quickly calculate the probability of a given event</i> SKILLS and COMPETENCIES - <i>Students would be able to</i> 1. Critically apply the concepts in given problems and collaboratively solve the related questions.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Inductive deductive reasoning Dimensions Of Learning- D1,D3 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) Taking the examples from day to day life, explanation of the terms chances, outcomes, event and probability Guided Practice: 15 min The students will solve the questions from NCERT book, Ex 3.4 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 would do the leftover exercise questions in their notebooks. 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 from their course book.
Assessments	Written test (5 minutes)