LESSON PLAN 4

NAME OF THE UNIT	SUB-TOPICS		NO OF PERIODS REQUIRED			Time line for teaching	
			Teaching	Practice	TOTAL	From	To
DATA HANDLING	4.1	LOOKING FOR INFORMATION	1	1	2		
	4.2	CIRCLE GRAPH OR PIE CHART	2	4	6		
	4.2.1	DRAWING PIE CHARTS					
	4.3	CHANCE AND PROBABILITY	3	5	8		
	4.3.1	GETTING A RESULT					
	4.3.2	EQUALLY LIKELY OUTCOMES					
	4.3.3	LINKING CHANCES TO PROBABILITY					
	4.3.4	OUTCOMES AS EVENTS					
	4.3.5	CHANCE & PROBABILITY RELATED TO REAL LIFE					
		TOTAL	6	10	16		

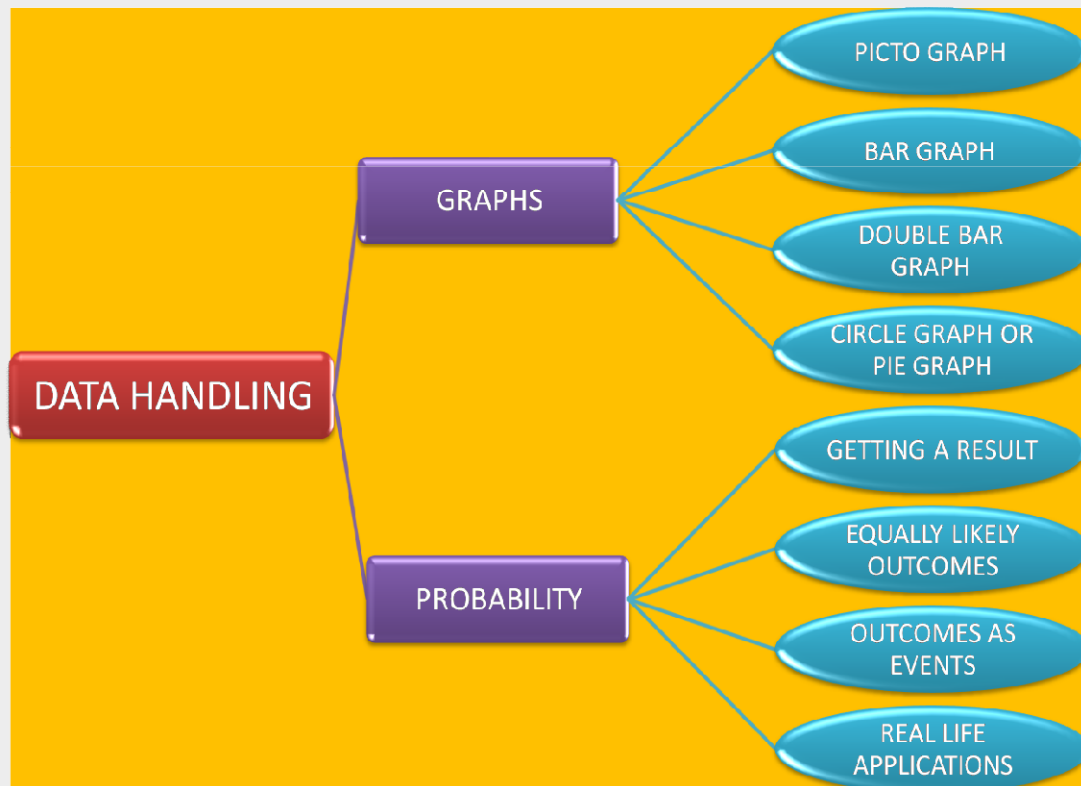| PRE-REQUISITES	KEY CONEPTS	KEY VOCABULARY	
	Every Pupil is expected to have basic knowledge in # Data handling concepts like Pictograph, Bar Graph, Double bar graph etc., # circle and its parts # Angle, calculating percentage # perform four fundamental operations like +,-,x,÷	# Data Handling # Pictograph ,Bar graph, Double Bar graph # circle, Pie, Sector, Chart # Angle # Percentage # chance # Probability	# Equally likely events # Outcomes # Result # Favourable Outcomes # Total Outcomes # Sample space

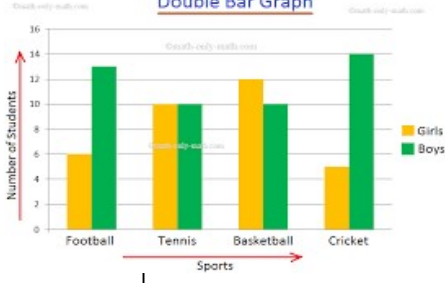| Learning Outcomes |
|---|
| After Completion of this lesson every student will be able to |
| # represent given data by selecting the best suitable way of representation like pictograph, bar graph,double bar graph or a pie - chart |
| # compare, analyse and comment on the allocation of different data points in a pie chart |
| # calculate the chance or probability of any given event. |
| # recognize the significance and appreciate the importance of Data Handling concepts like circle graphs and probability in real life situations. |

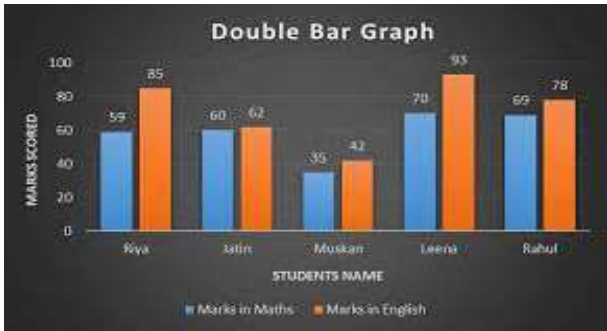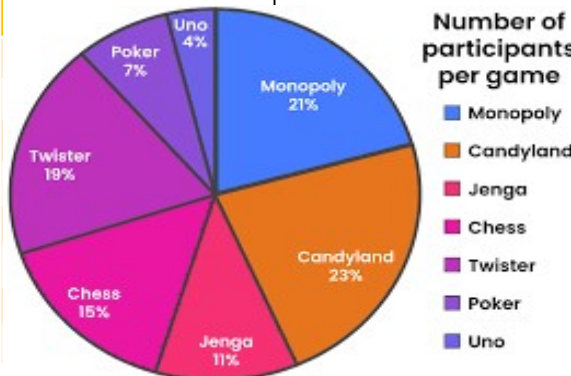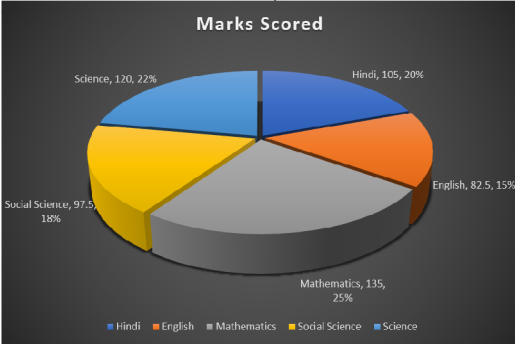| Teaching Learning Process	
MIND MAPPING	**Experience & Reflection**
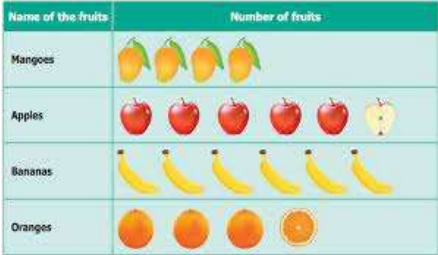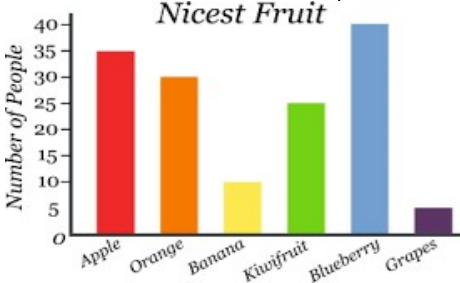
Pupils will recollect their knowledge on pictograph, bar graph, double bar graph and other data handling concepts they have learnt in their previous class and utilize the same here to learn the new concepts like pie-graph and Probability etc.,

Students will experience the knowledge on datahandling in real life situations.

TEACHING PERIOD : 1	LOOKING FOR INFORMATION		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS & PRE REQUISITES	Brain storming session invoving children with pre-requisites vocabulary and concepts related to previous knowledge. Introduction of new vocabulary and key words associated with the concept # Pictograph # Bar Graph # Double Bargraph # Data # graphically	* Students read the pre-requisites and answer the questions to the teacher (whole class activity)	Every Pupil will read and write the key words in their note books
MIND MAPPING	Teacher writes the key word "DATA HANDLING" on the black board and will elict its other related words through questioning and will draw pupils' attention towards key concepts in the lesson	Hetrogeneous groups are created. One group will read the words and other will explain the meaning	Pupils individually read the keywords associated with Integers
CONCEPTUAL UNDERSTANDING	Teacher recalls the previous knowledge of pupils from classs 7th where they have learnt about different representations like Pictograph, Bar Graph, Double Bar graph. Teacher once again recapitulates those concepts by giving some illustrates and ascertains that every child is thorough with those basics inorder to make them ready to go further into the data handling concept.	Hetrogeneous groups are formed and are given different datas and are instructed to prepare a suitable graph for the data given to them.	Each student in the group participates in the activity and recollects their previous knowledge on data handling
LEARNING ACTIVITY			
SUMMARY	Teacher writes the summary of the concept detailing about how and in what type of data representation a pictograph or bar graph or double bar graph is used and asks children to note and read and adopt	pupils will note down and read the summary in groups	every individual reads the summary and notes it down
ASSESSMENT	Teacher asks children to solve the sums of try these section	every group will do the sums by discussion among each other	every individual solves the sums on their own

PRACTICE PERIOD: 1	LOOKING FOR INFORMATION		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # Pictograph # Bar Graph # Double Bargraph # Data # graphically	Whole class activity : one child comes to the board and reads the key words loudly and the remaining class follows.	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher draws relevant graphs for some data and asks children to draw relevant graphs to some more given data by observing similar lines 	Each group will read the similar lines and will frame some more by discussion	Every Individual prepares their own similar lines using the lines prepared by the teacher
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and procedure adopted in drawing different graphs and asks children to read,note down and practice.	pupils will note down and read the summary in groups	every individual spells and reads the summary and notes it down
WRITING/ EDITING	Teacher guides children in doing sums of try these section as well as example on their own and checks their writings	One group will check the writings of the other and vice versa	Slow learners are focused and teacher will ascertain that every individual learns the concept in successive upcoming practice sessions

TEACHING PERIODS : 2,3	CIRCLE GRAPH OR PIE CHART, DRAWING PIE CHARTS		
CONCEPTS/STEPS	**TEACHER ACTIVITY (I DO)**	**GROUP ACTIVITY (WE DO)**	**INDIVIDUAL ACTIVITY (YOU DO)**
KEY WORDS	Brain storming session invoving children with key words # Circle Graph # Pie Chart # Sector # Angle # percentage # Portion # Fraction	* Students read the keywords answer the questions to the teacher (whole class activity)	Every Pupil will read and write the key words in their note books
CONCEPTUAL UNDERSTANDING	Teacher introduces different parts of a circle and more preferably the sector and demonstrates the concept of drawing a sector. Later Teacher illustrates the concept of finding percentage of any quanity/amount out of the Total. After intoducing all these basic knowledge which was needed in drawing a pie chart , then teacher demonstrates the procedure of allocating the given data into different sectors of a circle depening upon their percentage of allocation using some illustrative data Now teacher draws a pie chart or circle graph with the help of the table of allocation of sectors prepared earlier and continuous to do so in the forth coming teaching session until he ascertains that every child learns the process of drawing pie chart	pupils are divided into hetrogenous groups and given different types of quadrilateral shaped paper cuts and are instructed to observe the properties through discussion	Each student in the group participates in the activity and learns the concept
SUMMARY	Teacher once again writes important key words and step wise procedure adopted in drawing a pie graph for the given data and asks children to note down and adopt.	Pupils will note down and read the summary in groups	Every individual reads the summary and notes it down and adopts the procedure
ASSESSMENT	Teacher gives some questions from Try These sections, example sums,exercise sums of 4.1 and asks children to solve those sums	Every group will do the sums by discussion among each other	Every individual solves the sums on their own

Table within CONCEPTUAL UNDERSTANDING:

Name of the game	No of Players showing interest	Fraction out of central angle 360^0	% of allocation
Monopoly	5250	=(5250*360)/25000 = 76^0	21%
Candyland	5750	=(5750*360)/25000 = 83^0	23%
Jonga	2750	=(2750*360)/25000 = 40^0	11%
Chess	3750	=(3750*360)/25000 = 54^0	15$
Twister	4750	=(4750*360)/25000 = 68^0	19%
Poker	1750	=(1750*360)/25000 = 25^0	7%
Uno	1000	=(1000*360)/25000 = 14^0	4%
Total	25000	360^0	100%

Number of participants per game

Uno 4%
Poker 7%
Monopoly 21%
Twister 19%
Chess 15%
Candyland 23%
Jenga 11%

- Monopoly
- Candyland
- Jenga
- Chess
- Twister
- Poker
- Uno

PRACTICE PERIODS: 2 to5	CIRCLE GRAPH OR PIE CHART, DRAWING PIE CHARTS		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # Circle Graph # Pie Chart # Sector # Angle # percentage # Portion # Fraction	Whole class activity : one child comes to the board and reads the key words loudly and the remaining	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher draws one pie graph for an examplary tabulated data on the black board and asks children to draw pie graphs for some more data. Draw a pie chart for the following data showing the marks scored in an examination by a student in Hindi, English, Mathematics, Social Science and Science. If the total marks obtained by the student were 540 | Subject	Marks scored	Fraction out of central angle 360^0
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Hindi	105	$=(105*360)/540 = 70^0$
English	82.5	$=(82.5*360)/540 = 55^0$
Mathematics	135	$=(135*360)/540 = 90^0$
Social Science	97.5	$=(97.5*360)/540 = 65^0$
Science	120	$=(120*360)/540 = 80^0$
Total	540	360^0 | Marks Scored — Science, 120, 22%; Hindi, 105, 20%; English, 82.5, 15%; Social Science, 97.5, 18%; Mathematics, 135, 25% (Hindi, English, Mathematics, Social Science, Science)	Each group watches the similar lines and solves some more	Every individual solves some more statements by watching the similar lines
SUMMARY/ SYNOPSIS	Teacher once again writes important key words procedure in drawing a pie graph and asks children to note down and adopt.	Pupil groups will read and adopt the procedure	Teacher focuses on every individual so that each one learns the concept in successive upcoming practice sessions
WRITING/ EDITING	Teacher gives some questions from Try These sections and exerise sums asks children to solve those sums and teacher checks the writings of children	One group will check the writings of the other and vice versa	

TEACHING PERIOD : 4,5,6	CHANCE AND PROBABILITY,GETTING A RESULT,EQUALLY LIKELY OUTCOMES,LINKING CHANCES TO PROBABILITY,OUTCOMES AS EVENTS,CHANCE & PROBABILITY RELATED TO REAL LIFE		
CONCEPTS/STEPS	**TEACHER ACTIVITY (I DO)**	**GROUP ACTIVITY (WE DO)**	**INDIVIDUAL ACTIVITY (YOU DO)**
KEY WORDS	Brain storming session involving children with key words # Probability # chances # outcomes # Equally likely outcomes # Favourable Out comes # Result # Sample Space	* Students read the key words and answer the questions to the teacher	Every Pupil will read and write the key words in their note books
CONCEPTUAL UNDERSTANDING	Teacher introduces the concept of Probability to the children by asking some real life questions and by eliciting answers. Questions like 1)will it rain or not today? 2)If I toss a coin what could be the chance of getting a head? 3)If a roll a dice and get 6 on the face, will I be of lesser chance to get 6 when i roll it for the second time? will be posed to children with the help of their answers teacher explains the concepts like chance, Outcome, Sample space, equally likely outcome,favourable outcome, random event etc., and later will conduct an activities involving tossing of coins and roling of dice by different groups of children repeatedly for 40 to 70 times each. Each time the outcome is tabulated in tally marks in a table. with the help of the data teacher will explai how equally likely an event is and further will formulate the probability.	Hetrogeneous groups are created and are given either coin or dice and are instructed to tabulate the outcome each time after tossing or roling as per the item given and observe and analyse	Every child participates in the learning activity and understands the concept
LEARNING ACTIVITY			
SUMMARY	Teacher writes the summary how to find the probability of a given event on the black board and asks children to read write and note down	pupils will note down and read the summary in groups	every individual reads the summary and notes it down and adopts the procedure
ASSESSMENT	Teacher gives some questions from exercise 4.2 and asks children to solve those sums	every group will do the sums by discussion among each other	every individual solves the sums on their own

PRACTICE PERIODS: 6 to 10	CHANCE AND PROBABILITY,GETTING A RESULT,EQUALLY LIKELY OUTCOMES,LINKING CHANCES TO PROBABILITY,OUTCOMES AS EVENTS,CHANCE & PROBABILITY RELATED TO REAL LIFE		
CONCEPTS/STEPS	**TEACHER ACTIVITY (I DO)**	**GROUP ACTIVITY (WE DO)**	**INDIVIDUAL ACTIVITY (YOU DO)**
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # Probability # chances # outcomes # Equally likely outcomes # Favourable Out comes # Result # Sample Space	Whole class activity : one child comes to the board and reads the key words loudly and the remaining class follows.	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher finds the probability of a few events using formula and asks children to find the probability of some more by watching the similar lines if Srikanth takes out a ball randomly out of a bag containing 5 red and 3 blue balls, what is the probability of the ball being taken out is a red one? Sol: Total No of balls n(T) = 5+3=8 No of Red balls n(R) = 5 Probablity of a red ball p(R) = n(R)/n(T) = 5/8	Each group will read the similar lines and will frame some more by discussion	Every Individual prepares their own similar lines using the lines prepared by the teacher
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and procedure of finding probability and asks children to read ,note down and adopt.	Pupil groups will read the summary and procedure and utilize	Teacher focuses on every individual so that each one learns the concept in successive upcoming practice sessions
WRITING/ EDITING	Teacher asks children to solve the sums of exercise 4.2 on their own and teacher checks the writings of children	One group will check the writings of the other and vice versa	