Session 40: Introduction to Graphs and Diagrams

Session Title	Understanding Statistics – Graphs a
Objective	By the end of this session students will b 1. Understand the purpose of using gra diagrams to represent data. 2. Draw pictographs and bar graphs fro frequency table 3. Interpret information from given dia
Concepts	Introduction to Graphs and Diagrams
Material Required	1. Board & chalk 2. Scale & Pencil (must for each stude 3. Pre-drawn bar graph and pictograph 4. Crayons /sketch pen 5. Graph paper (for better understandi
Methodology	Activity oriented
Session Duration	90 Minutes

Intro Activity (15 minutes):

Compliment Circle (10 minutes)

How to play: Sit in a circle and take turns giving compliments to the person on your right.

Example:-

- “I like how you always help others”
- “You’re really good at drawing”
- “I appreciate that you listen when someone is speaking”

Recap:- (5 minutes)

Quick recap of frequency tables. Ask students questions like:-

1. What did we learn yesterday about organizing data?
2. What is a frequency table used for?

Main Activity (45 minutes):

Explanation (15 minutes)

A. Pictographs:-

Show how one symbol = fixed number (e.g., 1 book = 2 students)

Explain with model question

1. Students of Class 5 were collecting classroom materials for an art and craft week. Each day, they brought different numbers of materials like crayons, glue sticks, scissors, and colored paper.

The pictograph below shows the number of materials collected each day.

(Assume: Each symbol = 2 items)

(Draw the picture given below on a chart)

Days	Number of ice creams
Monday	✏✏✏✏✏ =10
Tuesday	✏✏✏✏✏✏✏ =14
Wednesday	✏✏✏✏ =8

Thursday	✏✏ =4
Friday	✏✏✏ =6
Saturday	✏✏✏✏✏ =10
Sunday	✏✏✏✏✏✏ =12
✏=2	

1. How many materials were collected on Friday?
2. On which day were the most materials collected?
3. How many more items were collected on Thursday than on Wednesday?
4. What is the total number of materials collected during the week?
5. Which two days had the same number of materials collected?

B. Bar Graphs:- (30 minutes)

Introduce the X and Y axes.

Plot a bar graph using the same data.(collection of class room materials)

(Draw the picture given below on the board)

AD_4nXduHfALwgtMwJTabnMI554j7ffWo8tcdDKhhsuGr-ZiJIqQa_jqllvwYIIMFaEfwtCayb_do4VGtaW8LJ

Review Questions (20 minutes):

Class work (20 minutes)

Divide students into small groups

1. Draw a pictograph by choosing a proper scale for the following data.(change the name of beverage according to the students' choices)

AD_4nXfNSFWQ903CGLx6_MedOkqpfg8TmbfXuXl0JJBsXpgvs0HDB8IYw2HgIHz05S_24GZieqaDFxCID

2. Consumers were polled about their favourite ice cream flavours in a survey. Draw a bar graph for the following data.

AD_4nXfzcVWILR4TONyJPMzR1G6H-i878AHaICdOtcEiZfzWDjIo0fvjCgJtfF50Lv5ZZnwAEOH_O5vILT_ml

Follow up Tasks (10 minutes):

The bar graph below depicts the number of students in various classes at a school.

AD_4nXeTwpfdLYPGvrjM2E0LaPaHTtua_mKL_piJNxbE9Q0pbB4o_cAxBq8Igw-uD-i0XwoIYypIvpfeghMP

Answer the below questions using the bar graph provided.

(i) The total number of students in each class

(ii) The overall number of students from grades 6 to 8.

(iii) The overall number of students from grades 1 to 8.

(iv) The number of students in a class on average

Expected Learning Outcome:

Knowledge building:

- Analytical thinking
- Data interpretation

Skill Building:

- Logical reasoning

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