

Displaying the Data

Purpose

Students will understand appropriate ways to display data collected from surveys.

Materials

For the teacher: copy of Social Studies text, chart paper, markers, copy of Black Line Master (BLM) *Survey Suggestions*

For each student: copy of Social Studies text, copy of BLM *Survey Suggestions*, 3 sheets of graph paper, paper, pencil, markers

Activity

A. Introduction

1. Tell students they are going to be working in groups to gather and record data in different ways.
2. Have students look through the Social Studies text to find 10 or 12 different graphs and record the titles, page numbers, and kinds of graphs. Instruct students to try to find different kinds of graphs (e.g., circle, line, bar, picture).
3. Tell students to make a chart on their paper with the following headings: "Page," "Title," "Kind of Graph."
4. Have students work in groups of three or four to make generalizations about the kind of information presented on different kinds of graphs (e.g., circle graphs are used when presenting information about percentages of each category, bar graphs compare information of different kinds, line graphs show change).
5. Discuss students' conclusions and record the information on chart paper.

B. Group Activity

1. Have students look at the list of suggestions on the BLM *Survey Suggestions* and decide on three surveys they would like to make (students can use suggestions from the list or decide on surveys of their own). Guide their choices to include graphs that will show percent (circle), graphs that compare different things (bar) and graphs that show change (line).
2. Once the data is gathered, help students to organize it and to decide on such issues as axis scales and labels.

(continued)



INCORPORATING **TECHNOLOGY**

Have students use a spreadsheet and its charting facilities to graph survey data. Let students create different graphs for the same data and decide which graph best displays the results.



connecting across the **curriculum**

Social Studies

Have students gather geographical data and draw graphs to compare areas, populations, etc.

Standards Links
5.3.4, 5.7.1

Activity (continued)

3. Allow time for students to conduct the surveys and make their graphs (this activity may extend over several days).
4. Have each student draw three graphs (line, bar, and circle) for the data collected.
5. After the graphs are drawn, compare them and discuss what data makes the best picture.
6. Display the graphs on a bulletin board.

Questions for Review

Basic Concepts and Processes

During the activity, discuss the following questions with your students:



How are you going to gather the information you need?



Does your graph have a title?



What information did you use to label the axes of your graph?

Name: _____



Survey Suggestions



1. Students' favorite toppings on pizza.

_____ cheese _____ pepperoni _____ veggies _____ mushroom

2. Favorite sandwich of students in this class.

_____ hamburger _____ cheeseburger _____ chicken _____ ham

3. Number of brothers and sisters of students in this class.

Brothers _____ Sisters _____

4. Changing heart rates when resting and exercising.

Resting _____ Exercising _____

5. Changing temperature over a week's period.

Sunday: High _____ Low _____ (etc.)

6. Populations of counties in our area.

7. Populations of the ten largest cities in the U.S. or the world.

8. Shoe sizes of students in this class.

9. Number and kinds of pets of students in this class

10. Number of children of teachers in this school.

11. Number of students in different classrooms in this school.

12. Amount of time spent on different activities in a 24-hour period

Sleep _____ Eat _____ School _____

Recreation _____ Other _____

Survey Suggestions

Teacher Directions

Distribute one copy of the BLM *Survey Suggestions* to each student. Have students use the topics on the BLM as a source of ideas for student surveys.

Answer Key

Not applicable.