

Recording Results

Purpose

Students will represent data on a number line and in tables, including frequency tables, and will interpret data graphs to answer questions about a situation.

Materials

For the teacher: overhead projector, blank transparency, overhead markers, transparency of Black Line Master

(BLM) *Time Spent Doing Homework*

For each group of 4 students: blank paper, crayons or markers, rulers, lined paper, pencils, copy of list of students in the class

Activity

A. Introduction

1. Tell students they are going to be working with different ways of recording and reading information (data).
2. Show the transparency of the BLM *Time Spent Doing Homework*. Tell students that at the end of last year you took a survey of the fourth graders in your class to find out approximately how many hours were being spent on homework each night. The overhead transparency shows the results on a line plot.
3. Ask: "What are some questions that can be answered by looking at this number line?"
4. Record the questions students suggest. Have students volunteer answers.
5. Ask: "Can you think of another way we could show these same results?" Take suggestions and decide what the different graphs would look like.

B. Group Activity

1. Hand out to each group of four students a copy of the class list and several sheets of blank paper.
2. Tell students that they are going to be recording the number of letters in each student's first name on a number line similar to the one above.

(continued)

connecting
across the
curriculum



Science

Have students use www.weather.com to collect and graph information about temperatures for different cities for different lengths of time.

INCORPORATING
TECHNOLOGY



Have students use a spreadsheet to record data and create charts to display data. Paste the charts into a word processing document, where students can explain and interpret their charts.

Standards Link
4.7.4

Activity (continued)

3. Tell students to decide in their group what the number line will look like and how they are going to record the information.
4. Tell students that after they finish recording the information, they are to write four questions that could be answered by looking at this recorded information.
5. Give time to complete this activity and to share and compare number lines and questions generated.
6. Ask students if they can think of another way to record this information. Have them discuss this in their group and make a new chart or graph to record the same information.

C. Follow-Up Activity

1. Tell students they are going to work with their group to conduct a survey, record the results, and ask four questions that can be answered by reading the information.
2. Tell students these will be traded with other groups on another day to see if the questions can be answered just by looking at their chart or graph.
3. Ask for suggestions of surveys that could be made. (Possible suggestions: shoe size of students in class, number of letters in names of students in other classrooms, number of reams of paper used in school copy machine each month, height of students in the classroom or in another classroom.) Suggestions should be taken for data that can be gathered that will vary, but not too much. Each group should have a different survey for which they are going to record results.
4. Students are given time to gather information and record it. Graphs and questions are then exchanged with other groups on another day.

Questions for Review

Basic Concepts and Processes

During the activity, discuss the following questions with students to gauge their understanding of the indicators:



What is your number line going to look like?



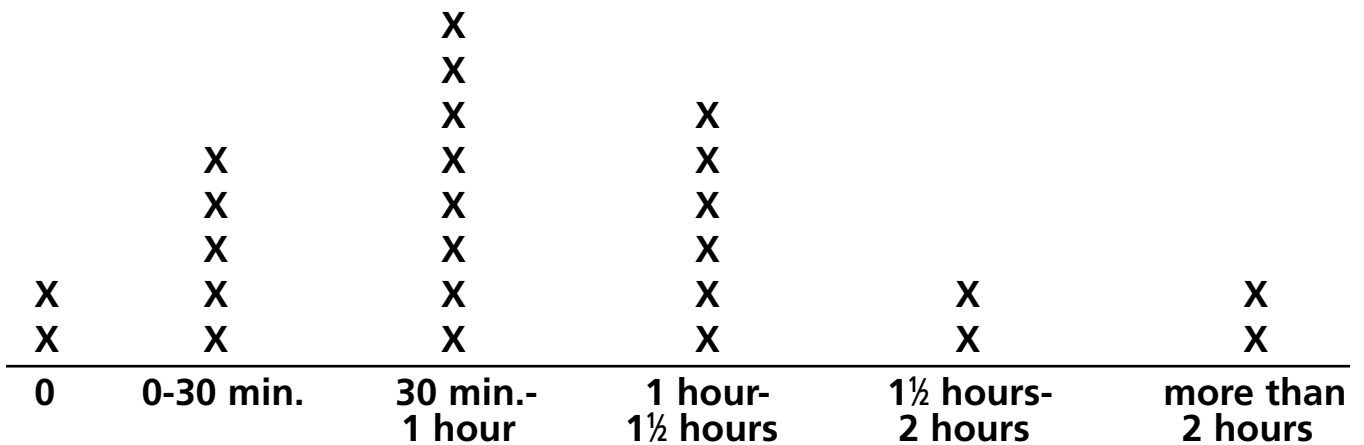
Have you recorded your data accurately on the line plot?



What kinds of questions can you ask about your data?

Time Spent Doing Homework

This is the result of a survey taken at the end of last year on approximately how much time fourth-graders spent on homework each evening.



Time Spent Doing Homework

Teacher Directions

Use a transparency of the BLM as a model for how to record information on a number line.

Answer Key

Not applicable.