



Usage and Interpretation of Graphs

Grade Level: 3-6

OVERVIEW: Whereas graphs are used extensively in our everyday lives, many students are unaware of the multiple uses of graphs.

PURPOSE: Through this lesson the students will receive a review on graphs. This lesson also involves problem solving and will require the student to use his/her processing skills. The lesson will also demonstrate to the student how useful graphs are, and that graphs can summarize.

OBJECTIVE(s): Students will be able to:

1. Define the following terms:
 - bar graph b. line graph
 - picture graph
 - pie graph
 - vertical axis
 - horizontal axis
2. Interpret data and make a graph from given data.

RESOURCES/MATERIALS: One sheet of poster board (18x24) with an X and Y axis; strips of different color construction paper 2"x 12"; scissors for each group.

ACTIVITIES AND PROCEDURES:

1. Students will be placed into groups, cooperative learning, and each member will be assigned a particular role. (Leader, timekeeper, recorder, checker, encourager)
2. Give the assignment to the class, the groups are to predict how many shoe eyelets are in the classroom without looking at the other students' shoes! I will tell the students that there are 12 eyelets in running shoes, and that hightops and boots will have approx. 24 eyelets (So a pair of hightops would have 48 eyelets). You will also need to remind the students that some shoes do not have any eyelets. You could also do this lesson with color of shirts worn by the students or take a survey of favorite colors.
3. Double check with the students to make sure they understand what the assignment is asking for.
4. Ask the students to make an individual prediction as to how many eyelets they think are in the classroom. Then have the students discuss their predictions with their individual groups.
5. Tell the groups that they may look at the shoes and count the eyelets of each member of "their group only".
6. Give each group a strip of construction paper (colored). One inch on the strip will

be equal to 100 eyelets. After the groups have gathered and discussed their data they will cut the strip to the length equal to their prediction.

7. You will need a master graph, I used a sheet of poster board. A member of each group will bring their strip of paper up to the poster board and glue the strip to the board.

TYING IT ALL TOGETHER: Ask each group to give you their count of how many eyelets there are in their own group. Total these figures to come up with the actual sum of eyelets in the classroom. Ask the groups what methods they used to come with their predictions, which method seemed to work the best.

SUGGESTIONS/MODIFICATIONS

- Students may use a number of different items to count and enter the data onto different graphs.
- Students should be encouraged to make their graphs accurate, precise, and easy to read- reminding the students that graphs are only effective if they are accurate and easy to read.
- Poster board may be substituted for smaller paper or the chalkboard.

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