



Name \_\_\_\_\_

Partner \_\_\_\_\_

## Data Analysis Challenge

You will work with a partner on this activity, but you will each complete the steps and create your own graph(s). Agree on a survey question, then survey people individually. Compile your data, graph it, and analyze it. Store all materials in a folder to submit and share at the end of the project.

**1. Choose Topic:** \_\_\_\_\_

**2. Write Survey Question:** \_\_\_\_\_

\_\_\_\_\_

**3. Choices:** \_\_\_\_\_

**4. Choose Population:** \_\_\_\_\_

Example: 5th grade students, students at our school, residents of our city, school bus riders, children, adults, etc.

**5. Choose Two Sample Groups for comparison:** \_\_\_\_\_

You can compare boys to girls, adults to children, 4th graders to 5th graders, etc.

**6. Make Prediction** What do you think your survey will reveal?

\_\_\_\_\_

\_\_\_\_\_

### 7. Conduct Survey

On another sheet of paper, write your question. Each of you, divide your paper in half and survey at least 15 people in each sample group. Write their names and their votes. (You should end up with at least 30 people in all.)

### 8. Tally Results

Work with your partner to compile your results. Make a tally chart and a frequency table of your results. Remember, you'll need 2 different columns for the tallies because you have 2 sample groups.

### 9. Choose your Graph Type

Decide which type of type of graph would be most appropriate for the data. Choose from double bar graph, double line graph, two histograms, or two circle graphs. If you would like to use another type of graph, get approval first to make sure it is appropriate. Explain why you chose that type of graph.

Graph Type: \_\_\_\_\_

Reason for Choosing: \_\_\_\_\_

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### 10. Create Graph(s)

Use Microsoft Excel or the Create a Graph website to create one or more graphs of your data. Get approval before printing your final graph(s).

### 11. Analyze Your Data and Draw Conclusions

Examine your graph(s). What trends or patterns can you identify? If you collected numerical data, calculate the range, mode, median and mean of your results. Write several inferences and conclusions you can draw from the data.

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### 12. Share Survey Results

Create a plan for sharing your results with the class. Discuss with your teacher.

### 13. Reflect on Participation

On another piece of paper, reflect on your participation in this project . How did you and your partner work together? What did you learn from this project? What math concepts did you use in this activity? What would you do differently next time?