Getting to Know You

Topic
Organizing and displaying data

Key Question
How will you show your data?

Learning Goals
Students will:
• record data about themselves,
• find different people in the class who match each item, and
• graphically represent the data from a category.

Guiding Documents
Project 2061 Benchmark
• Graphical display of numbers may make it possible to spot patterns that are not otherwise obvious, such as comparative size and trends.

NCTM Standards 2000*
• Collect data using observations, surveys, and experiments
• Sort and classify objects according to their attributes and organize data about the objects

Math
Data analysis
data displays
graphs

Integrated Processes
Observing
Collecting and recording data
Comparing and contrasting
Interpreting data

Materials
Scissors
Butcher paper
Marking pens
Crayons

Background Information
This activity is a way for you to assess the organizing and graphing skills of your students. This information will tell you whether you need to do further guided work with data organization or graphing before the class can comfortably move on to activities where graphing is expected.

Management
1. Since this activity lends itself to creative expression, you will not know what form the displays will take. Anticipate some possible material needs.
2. Consider doing this activity over two days. The first day students will write answers and play the matching game, after which the papers can be collected for you to peruse. The second day students can cut their categories apart, then illustrate the data for a category assigned to each group.
3. Do not tell students what they will be doing with the information they write. If they know they will be looking for matches in their class, they may purposely write answers that will match someone else’s answers.
4. When looking for matches in which speed is an element, caution students about safety issues.
5. Labels naming the different categories can be placed around the room to designate collection areas.
6. A blank page is included for those who wish to devise their own categories for the survey.

Procedure
Day One
1. Tell students that they are going to do a survey that will help them learn about each other.
2. Distribute the survey and have each student write his or her answers in the second column. Purposely give no explanation about what they will do following this task as it may influence what they write.
3. Explain that students will be playing a matching game. They will have a limited time to find a different person to match each of their answers. In the third column, the matching person will sign or initial next to his or her answer, but can only do so one time on a given person’s paper.
4. Give a starting signal. When most, but not necessarily all students, seem to be finished finding matches, give an ending signal.

5. Find who has the most matches and what some of those matches are. Collect their papers so you can read them and become better acquainted with the class.
Day Two

1. Decide which categories would be best (most informative, data without numerous groupings) for illustrating. The number of categories chosen should match the number of groups. List these so the class can see them.

2. Return the surveys to the class and have them cut across the horizontal lines so that the category and answer are in one piece. The matching initials should be cut away.

| Favorite color | blue |

3. Designate specific areas in the room for each category and have students distribute their paper strips to the corresponding areas.

4. Explain that each group will receive one category of data and they are to create an appropriate graph or display (bar graph, circle graph, Venn diagram, dichotomous key, etc.) of that data. The data should be presented in a way that is easily understandable. Give groups the opportunity to pick the category with which they will work.

5. Distribute a large piece of paper to each group. Have each group discuss how they are going to make their display, then complete it.

6. Have the groups present their displays.

Connecting Learning

1. What was something new you learned about someone else?
2. What do you like about this data display?
3. In what other ways could this data have been displayed?
4. What do the data tell us about our class?
5. What categories do you think might show different results for people of different age groups? Why do you think this?
6. What questions would you like to use?
7. What are you wondering now?

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<th>Favorite color</th>
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<td>Eye color</td>
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<td>Favorite food</td>
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<td>Number of years at this school</td>
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<td>Favorite holiday</td>
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### Getting to Know You

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**STATISTICS AND PROBABILITY**

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Connecting Learning

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