



Using Data to Tell Our Story



The purpose of this activity is for educators to engage in data collection, representation, and interpretation to better understand how instruction about data and measurement can be playful and culturally responsive. In this activity, educators will collect their own data, represent the data visually, and interpret the data to draw conclusions about their question of interest.

Key Concepts

- Collect data by surveying people in their session.
- Represent data visually by making a graph.
- Interpret data and draw conclusions.

Materials and Setup

- Chart paper
- Stickers
- Paper and markers



20–30 minutes



Large or small groups



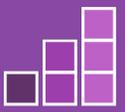
In-person

Activity Instructions

Instructions for the facilitator of this activity:

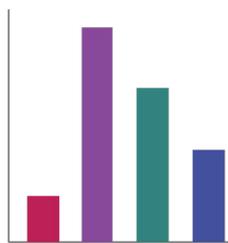
- Place three pieces of chart paper around the room, each with one of the following questions written at the top:
 - ◇ How do you feel about supporting children in data collection?
 - ◇ What is your favorite classroom routine or activity?
 - ◇ What area of math do you feel most confident teaching?
- Consider adding more questions if you have a large group of participants.
- Participants will work in small groups (ideally five to seven people) to collect, represent, and interpret data for one of these questions. It is OK if more than one small group focuses on the same question.
- All participants will add their vote to each of the three questions.



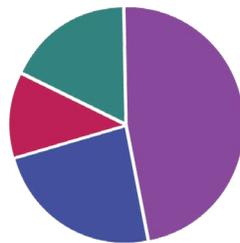


Instructions for the participants of this activity:

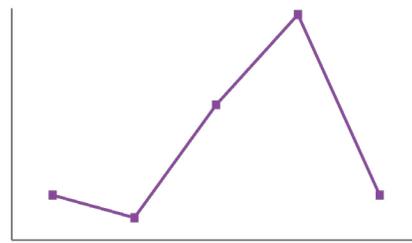
1. Three pieces of chart paper with questions are placed around the room. Move over to the question that is most interesting to you.
2. Together with others who have selected the same question you did, you will collect, represent, and interpret data for this question.
3. Data collection:
 - a. Decide three to five answer options you want to provide for your question. For example, for the question, "How do you feel about supporting children in data collection," you might provide "excited" as one of your answer options.
 - b. On the chart paper, add a column or row for each of your answer options.
 - c. It is now time for everyone in the room to add a sticker (or tally mark) to show their answer to each of the three questions posted in the room.
4. Data representation:
 - a. Once data has been collected from everyone in the room, get back into your question groups.
 - b. As a group, make a visual representation of the data from your chosen question. Consider whether it makes the most sense to make a bar graph, pie chart, line graph, pictograph, or something else.



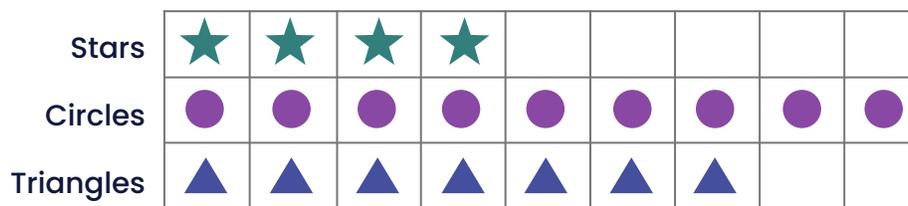
Bar graph



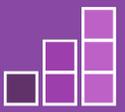
Pie chart



Line graph



Pictograph



5. Data interpretation:

- a. What conclusions can you draw from your data?
- b. Which answer option had the most stickers? Which answer had the least? Did any categories have the same amount?
- c. How many people answered your question?

Reflect and Discuss

Discuss the following questions with your group.

Data collection:

- How did your group decide what categories of answers to provide?
- Did you decide the categories ahead of time or create the categories after you collected your data?

Data representation:

- Why did you decide to represent your data in the way you did?
- What other visual representations could you have created to represent your data?

Data interpretation:

- What conclusions did you draw from your data?
- What strategies did you use to draw those conclusions? For example, did you estimate, count, or measure?

Child Activities

For activities that support children's understanding of data, explore the books below and related activities.

- Three to five years: [Sam Sorts](#) by Marthe Jocelyn and the activity [Sort It!](#)
- Six to eight years: [The Best Vacation Ever](#) by Stuart J. Murphy and the activity [What's For Dinner?](#)

