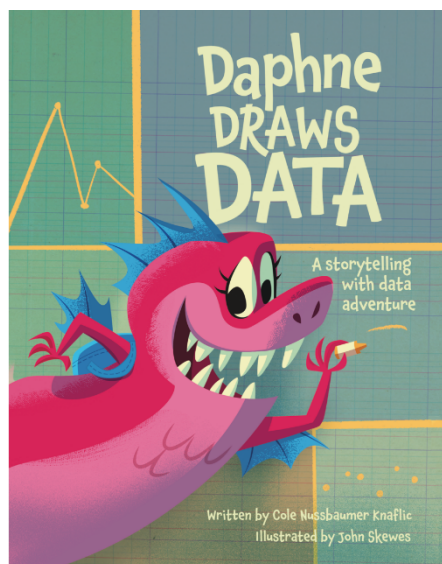


Graphing with Kids: Teaching the Superpower of Numbers and Data

Cole Nussbaumer Knaflie

Imagine a world where numbers and data come alive to solve problems, spark curiosity, and tell captivating stories. In this world, math isn't boring or intimidating—it's vibrant and full of possibilities, unlocking colorful and creative ways to understand the world around us.

This is the world of Daphne, the data-drawing dragon. Daphne thrives on transforming everyday questions into exciting adventures, using graphs and data to uncover answers and share discoveries. She shows kids that mathematics and statistics doesn't have to be hard—it can be a fun, creative, and meaningful superpower that connects to everyday life.



Through *Daphne Draws Data: A Storytelling with Data Adventure* (Knaflie, 2023), Daphne brings her vibrant world to children, inspiring them to explore, create, and make decisions with confidence. Drawing and interpreting graphs become tools of discovery, encouraging curiosity while making math approachable and enjoyable.

In classrooms across the country, elementary teachers are discovering how Daphne's adventures can spark meaningful learning and joyful exploration of math. One third-grade teacher in Wisconsin begins her data unit by reading *Daphne Draws Data* aloud to the class, allowing students to see the four different types of graphs that Daphne creates on her adventures - bar charts, scatterplots, line graphs, and pie charts.

After the read-aloud, the teacher poses a class question inspired by Daphne: "How do we pick books in our classroom library?" Students brainstorm a list—maybe they pick books by the cover, the author, the topic, or because a friend recommended it. Students love this part of the activity as they get to share ideas with their classmates. The teacher then guides the class through collecting data: students vote on their favorite way to pick a book anonymously.

The teacher tallies the results and shows the students the survey data. Then, they draw a bar chart

together as a class using their survey data. The teacher then shows students how this same data can be drawn in a pie chart! Students are encouraged to draw their own bar chart or pie chart as a homework assignment by designing their own survey, collecting data from friends and family, and practicing their data drawing skills!

In another classroom, a fourth-grade teacher in California takes it a step further. After graphing their data on book-selection methods, students analyze the results and brainstorm what those insights might mean. “If most of us choose books based on the cover,” one student suggests, “maybe we should make sure our library bins have the front covers facing out.” They redesign a small part of the library accordingly—and a week later, they collect new data to see if their changes helped classmates find books more easily. The teacher shared that *Daphne Draws Data* was a big hit with her students! “The variety of graphs, in imaginative and engaging contexts, opened their eyes to the purposes and possibilities of storytelling with data”. They also were inspired “to conduct several graphing activities in class.” .

Teachers find that activities like these go beyond teaching bar graph skills—they empower students to make observations, form questions, analyze data, and take action. Whether it's investigating how much time their class spends on different recess activities, surveying snack preferences, or measuring daily screen time, students begin to see themselves as data collectors and problem-solvers.

Daphne Draws Data supports math standards around data collection, graphing, and analysis, but just as importantly, it helps students build confidence and agency. A third-grade teacher in Wisconsin shared that after a lesson with “students started asking if they could draw a graph like Daphne every day”. She even overheard them collecting data on the playground and making their own colorful graphs and said, “It's amazing to see them have so much fun while learning.”

For teachers looking to integrate Daphne’s world into their classroom, the key is to start with a question students care about. Let them collect data, visualize it with color and creativity, and then talk about what they notice. Along the way, students develop fluency in mathematical language, experience the purpose behind bar graphs and charts, and gain a sense of ownership over their learning. This is a superpower worth investing in, and there are tons of free resources and lesson plans at www.daphnedrawsdata.com

Knafllic, C. N. (2024). *Daphne Draws Data: A Storytelling with Data Adventure*. Wiley Publishers. <https://www.wiley.com/en-us/Daphne+Draws+Data%3A+A+Storytelling+with+Data+Adventure-p-9781394215324>

Additional Resources

For additional resources, visit DaphneDrawsData.com, where you can find video companions to the book (including a [6-minute video on bar charts](#) for use in the classroom), interactive activities, and ideas to extend the learning experience. Explore [Daphne’s YouTube channel](#) for engaging videos to enhance lesson plans or use for sub plans. The [Educator Guide](#) contains full lesson plans and discussion questions for grades K-4 that align to both English and math [Common Core Standards](#).

To learn more about the process of creating *Daphne Draws Data* and the inspiration behind the

book and resources, [reference this article](#) from the Data Visualization Society.

Author Information:

Four-time best-selling author and CEO of *storytelling with data*, Cole Nussbaumer Knafllic helps people and organizations all over the world create graphs that tell compelling stories and influence change.

- **Name:** Cole Nussbaumer Knafllic. [Click here for a full author bio](#)
- **Address:** 7815 N River Road, River Hills, WI 53217
- **Email:** HelloDaphne@storytellingwithdata.com
- **Work Site:** storytelling with data
- **Location of Work:** Milwaukee, WI