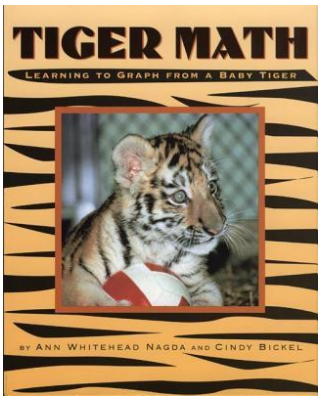
Book information: *Tiger Math* by Ann Whitehead Nagda and Cindy Bickel.
Some audio versions available on Amazon

Summary: In this non-fiction book, graphs are used to tell the story of T.J., a Siberian tiger cub born at the Denver Zoo. Graphs look at T.J.'s weight and food intake over time and compare him to other tigers.

Key vocabulary: picture graph, circle graph/pie chart, bar graph, line graph



Context for learning: The authors describe the experiences of T.J. and his caretakers from birth to age four. The narrative on the right facing pages could stand on its own as a story about T.J., with photographs documenting his first years of life. The left-facing pages contain graphs of various types (picture graph, circle graph/ pie chart, bar graphs, double bar graphs, line graphs, and double line graphs), along with explanations of the data and graph for each graph shown. As indicated in the title, the author draws connections between tigers, T.J.'s growth, and ways of representing and interpreting data. Readers are drawn into T.J.'s story, and the meaningful context set up in the narrative supports students in understanding and seeing the benefit of graphs to show data.

Math Concepts	Practices Addressed
Represent and interpret data	MP 3: Construct viable arguments and critique the reasoning of others
Analyze patterns and relationships	MP 6: Attend to precision to communicate with others.

Opportunities to teach braille:

- Tactile graphics: picture graph, circle graph, bar graph, line graph
- Number sentences that compare data over time (addition/subtraction symbols)
- Tables that show data numerically, relating the data in the table to the tactile graphic.
- Word problems (Nemeth Code within UEB contexts)

Follow-up activities:

1. Research an animal of interest and make a graph relating to the information learned.
2. Gather students' own past growth data from their families and make a graph about their first few years.
3. Compare and contrast the different types of graphs in the book and discuss advantages and disadvantages of different representations for different data. Students could also compare and contrast different types of graphs (e.g., compare the circle graph (p. 8) with the bar graph (p. 10) showing the numbers and percentages of different "Tigers in the Wild" (p. 10)). Discuss how each graph represents the same underlying data, as well as benefits and limitations of each type of display.
4. Visit a zoo or animal shelter and collect different data to graph.
5. Graph the growth of a plant over time.
6. Research careers associated with animals. Look at data like salaries and job need and growth.