

Toy Tally: How Many Toys Are There?

by Donna Loughran

Math Objective

In this book, children use different kinds of tables and graphs to track data. They are introduced to tally tables, picture graphs, and bar graphs.

iMath Discover Activity

In this activity, children place toys in groups by feature. They draw a tally table and write the names of the toys in the chart. Children make a tally mark for each toy in each group and record the information in a picture or bar graph.

Materials

- paper
- pencil
- toys

➤ **Objectives** Children will:

- sort and group items by feature.
- understand that a tally mark represents a toy.
- place the gathered data appropriately in a graph.

Lesson Plan

Before Reading

Investigation

Ask children to look at the picture on pp. 4–5. Ask: *What is a children’s hospital? What happens there? What is Mona’s idea?*
List on the board the children’s answers.

Tell children that people often raise money to give to a good cause. Ask: *Have you ever done something for your community? Picked up litter? Helped in the library? Visited a nursing home?*

Math Concepts

Connecting to what they know helps children engage in the topic.

Accessing prior knowledge gets children to think about and engage with the topic.

Explain that in this story, children join Mona as she and her friends plan their toy sale. They will learn how to make a tally table. Children will also read and make picture and bar graphs. They will analyze data on tables and graphs. And they will help the children in the story choose the best way to keep track of data.

During Reading

Investigation

pp. 6–7: Read these pages aloud. Invite children to answer the questions. Ask children to share how they might use a tally table, a picture graph, and a bar graph in their own lives.

pp. 9–13: Ask: *What kind of pet is your favorite? Let’s take a tally to find out which kind of pet is most popular.* Draw a tally table on the board and count and record their votes. Have them analyze the data. Reread these pages aloud one and a time and address the content on each. Ask questions like: *How could we put our tally data into a picture graph? How could we put our tally data into a bar graph?* Reread each page aloud and address the content and questions on each page.

Math Concepts

Accessing prior knowledge gets children to think about and engage with the topic.

Children take a tally vote and classify pets into given categories; count the numbers of pets in each category and sort the categories by count. Children organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. Children read a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in graphs.

pp. 14–15: Provide graph paper to the children, rulers, and colored pencils. Reread the pages aloud. Instruct

Children plan and construct a pattern for a toy bear.

children to make a paper pattern for a teddy bear. Have them list the materials and pieces they will need to sew their bear.

pp. 16–17: Reread these pages. Have children research this famous rubber duck cargo. Provide them with a map on which they can plot the ducks' progress around the ocean. Reread these pages aloud.

Children learn about currents within the movement of the ocean.

pp. 18–19 Reread p. 18 and discuss the donation box on that page. Reread p. 19 aloud. Have children explain why they think certain tables and graphs (tally table, picture graph, bar graph) work better than others. Encourage them to support their conclusions.

Children organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. Children reason and understand why certain strategies are better than others.

During Reading (continued)

Investigation

pp. 20–21: Reread p. 20. Draw the tally table on the board. Invite volunteers to fill it in. Then, reread p. 21. Work with children to help them think about how they will create their tally tables. Provide paper and drawing materials.

Math Concepts

Draw a chart to record data and information. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

After Reading

Ask children to restate the key ideas in the book.

Investigation

Have children use the bar graph feature found in most word processing programs. Have them put the information from their tally table into the program. Children print out their graphs.

Understanding Math

Children draw a bar graph to represent a data set. Children manipulate a software feature on a word processing program.

Invite children to make a picture graph of the members of their family.

Children draw a picture graph to represent a data set.