



Launching young readers!

Reading Rockets

Literacy in the Sciences: Activity No. 12

Creating Bar Graphs

By: Reading Rockets

Real-life scientists use charts and graphs as a way to organize and understand the information they have gathered. Young scientists can do the same! These activities will help you and your child create simple bar charts together, learn the vocabulary of graphing, and have fun building graphs using real objects.

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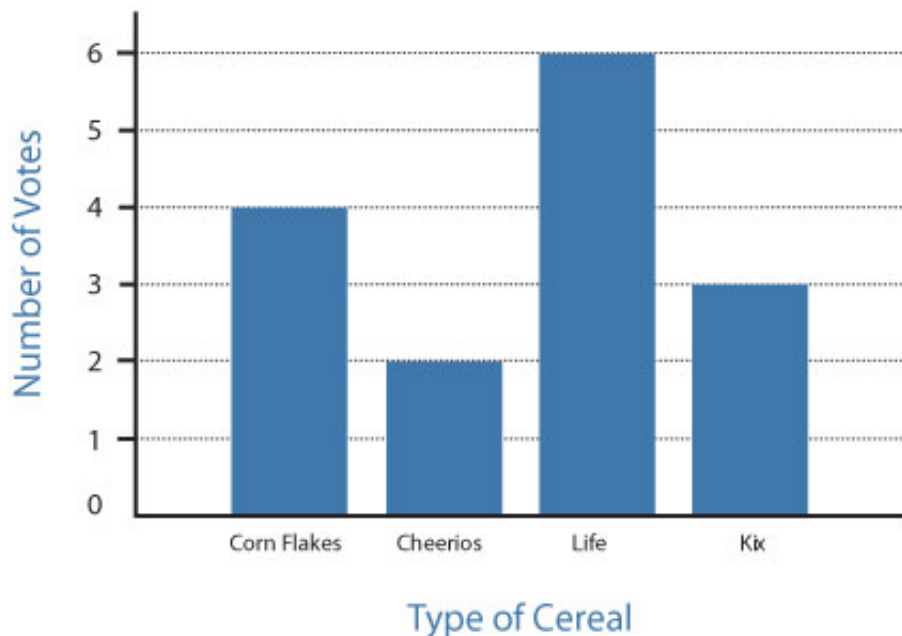
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One way to stimulate young minds is by creating and displaying information in chart and graph form. By creating simple bar or line graphs, children learn to ask questions and gather information about themselves and their surroundings. They also learn to sort and organize objects based on information. Last, young children can represent this information using real objects, pictures, and graphs.

Bar graphs are simple graphs in which the height of each bar provides information. Bar graphs use a few vocabulary words that help us understand the information in the graph.

- The **graph title** helps us know what information we can find on the graph. The graph title is usually found at the top of the graph. Our sample bar graph's title is Favorite Cereal.
- The **axes** are the two sides of the graph. The **vertical axis** runs goes from top to bottom. The **horizontal axis** runs along the bottom of the graph.
- The **axes labels** tell us what information is presented on each axis. In our sample graph, one axis is Type of Cereal. The other is Number of Votes.
- The **scale** tells us how many or how much. In our example, the scale uses the numbers 1, 2, 3.
- The **bar height** tells us the value of each option. In our example, the height of the bars tells us how many people voted for each cereal.

Favorite Cereal



Young children will love to create graphs based on all sorts of information. Some examples of graphs to create include: number of socks by color, favorite ice cream flavor, number of teeth lost, favorite thing to have for lunch.

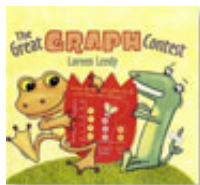
As an alternative to paper-based graphs, have children use a large sheet of paper. Draw some simple grid lines, and ask children to real objects, rather than a drawn bar, to display the information. For example, have your child lay out their

socks by color, or line up bowls to show favorite foods.

Once a graph is created, ask your child to "read" the graph. What is the title of our graph? What information does each side tell us? Which item had the most votes? Which item had no votes? Can you list the items from most votes to least votes?

Graphs are widely used in math and science. Helping your child learn how to gather, organize, and share information using a graph is a great way to prepare them for success in school.

Recommended children's books



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The Great Graph Contest
By Loreen Leedy

Chester the snail sets up a contest between his friends Gonk the toad and Beezy the lizard to see who can make the best graph. Points will be given for correct math, creativity, and neatness. Beezy and Gonk explore information collection (tallies and surveys) and the use of graphic organizers (Venn diagrams, quantity graphs, circle graphs, picture graphs, and bar graphs). In the end, kids can look at Chester's

graphically designed score sheet and see that the result is a tie. (Age level: 4-8)

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Lemonade for Sale

By Stuart Murphy

Four best friends start a lemonade business and make a bar graph to chart their growing sales. After three days the friends notice that their sales suddenly drop and investigate to find out why. After discovering that the competition is a new kid with a great juggling act just down the street, they ask him to perform beside the lemonade stand and then watch sales increase "over the top." (Age level: 4-8)

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Tally O'Malley

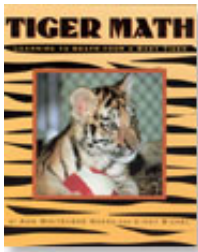
By Stuart Murphy

The O'Malley family is off to the beach, but it's a long, hot, boring drive. What can Eric, Bridget, and Nell do to keep busy? Play tally games, of course — counting up all the gray cars or green T-shirts they see. Whoever has the most marks at the end wins the game. This is a great picture book for teaching data collection and tallying. It also gives kids a head start in counting by fives and is a good basis for charts and graphs. (Age level: 4-8)

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Tiger Math: Learning to Graph from a Baby Tiger



By Ann Whitehead Naqda and Cindy Bickel

A Siberian tiger cub named T.J., born at the Denver Zoo, is orphaned when he is only a few weeks old. The veterinary staff raises him, feeding him by hand until he is able to eat on his own and return to the tiger exhibit. The story is accompanied by four different types of graphs (picture, circle, bar, and line) that display information about the numbers and types of tigers in the wild, how much T.J. is eating, and his weight compared with other tigers. This is a good introduction to how charts and graphs are used in the real world. (Age level: 6-12)

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"You may have tangible wealth untold. Caskets of jewels and coffers of gold. Richer than I you can never be — I had a mother who read to me." — Strickland Gillilan