

What's the BIG Idea?™

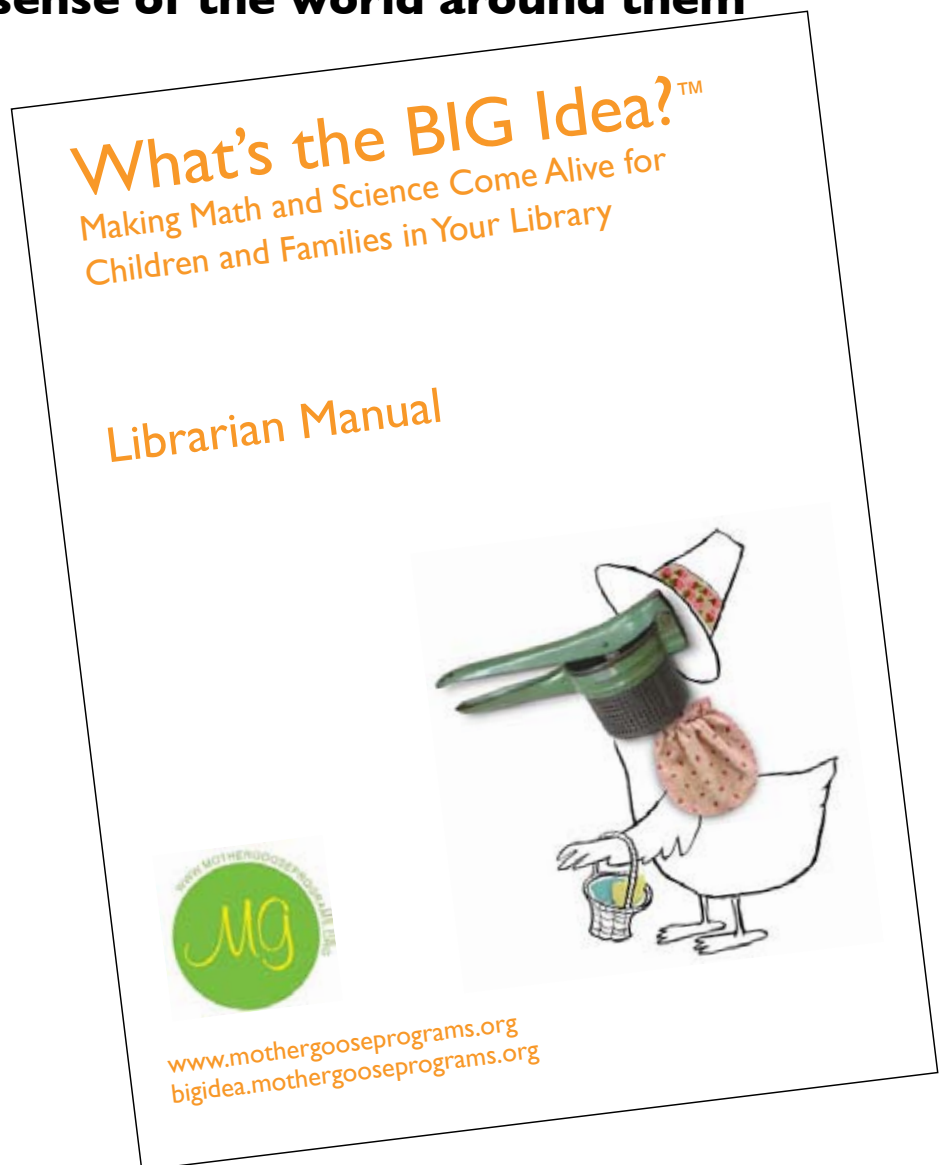


Today's webinar:
**Data Collection and
Graphic Representation**
1 P.M. EDT

www.mothersgooseprograms.org

What's the BIG Idea?™

- **Get children excited about math and science**
- **Contribute to children's school readiness**
- **Use hands-on activities to make books come alive**
- **Meet national and local education standards**
- **Help children make sense of the world around them**
- **Have fun!**



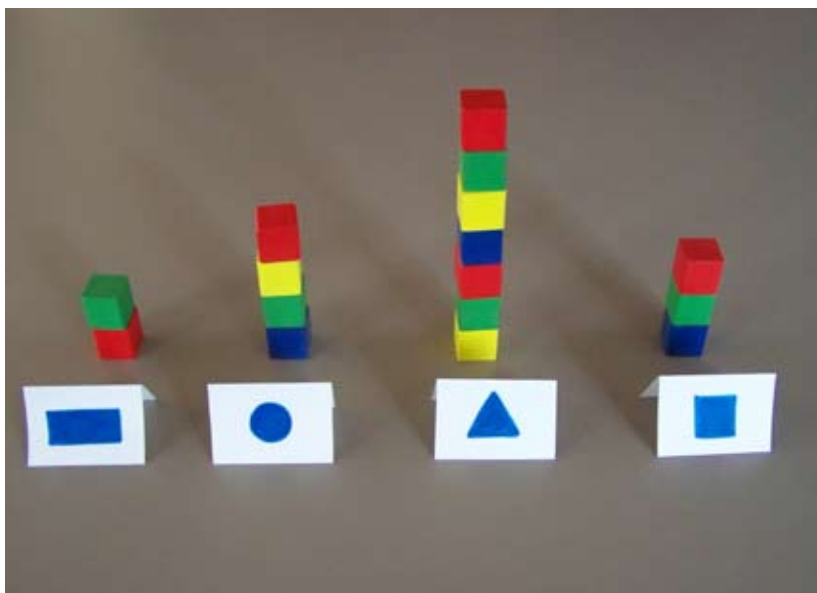
Data Collection and Graphic Representation

NCTM Standard

Data Analysis, Statistics and Probability

For young children, this includes...

- Sorting objects to answer questions.
- Collecting data to answer a question: keeping track of simple information gathered from a group of people or over a short length of time.
- Making lists or basic graphs, with adult help, to organize collected data.



Data from our shape search: What do you notice about our block graph? Which shape did we find most frequently in our library?

Process Skills of Science

Asking Scientific Questions

Collecting and Using Data

Communicating Information and Ideas

Designing and Making Models

Estimating and Predicting

Experimenting

Finding Patterns

Measuring

Noticing Change Over Time

Observing

Recognizing Relationships

Sorting and Classifying

Using Simple Tools of Science



T- Charts help us analyze same and different between two objects or events.

Bar graphs help us compare things. We easily see less than, more than and same as.

Block Bar Graphs: 3-D bar graph made from building blocks or linking cubes can be arranged on paper, allowing each column of blocks to be identified in writing.

Pictographs are like bar graphs but pictures are used instead of bars.

Pie or circle graphs show how the whole collection of data is divided into parts or fractions having specific attributes.

Sorting Loops are shoelaces, yarn or string used for grouping sets of items.

Tally chart: Each mark on a tally sheet represents one object.

Concept maps: A diagram that shows the relationships among themes and ideas.

Many measuring devices display information in a graphic manner: thermometers, calendars, schedules, clocks and auto dashboard displays are all visual representations of data being collected in a different way and place.

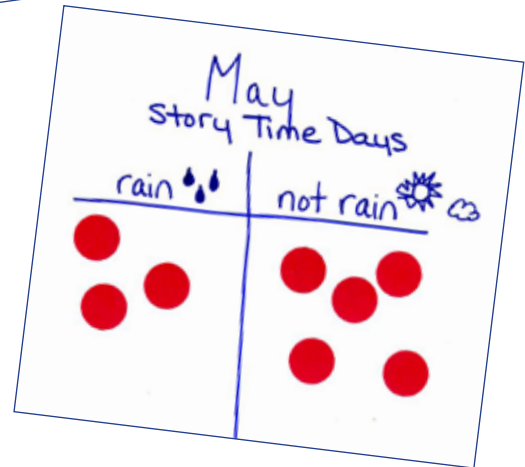
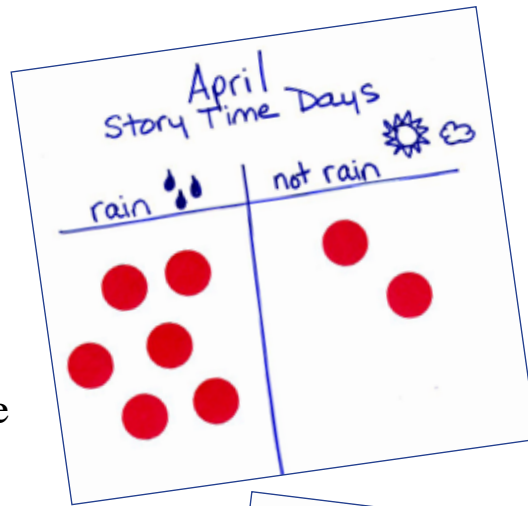
T-Charts

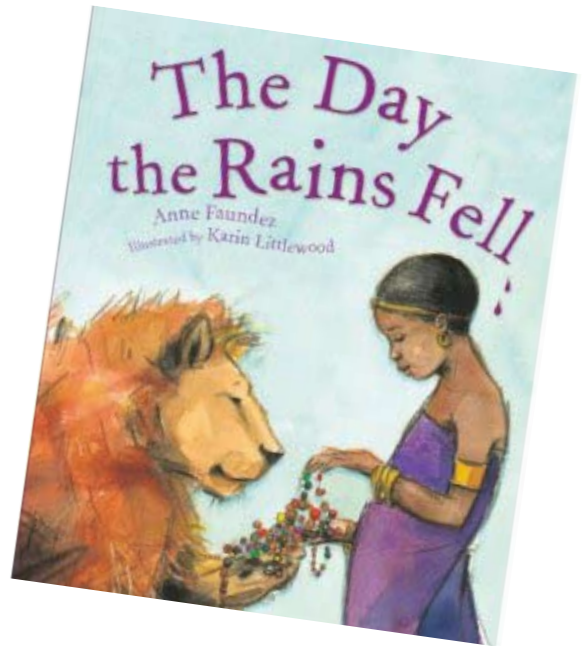
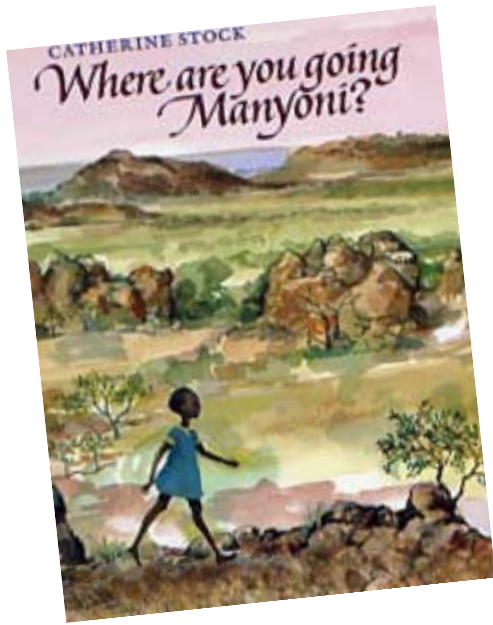
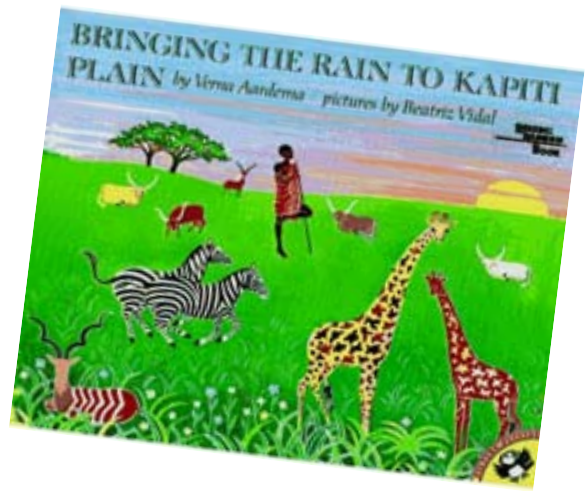
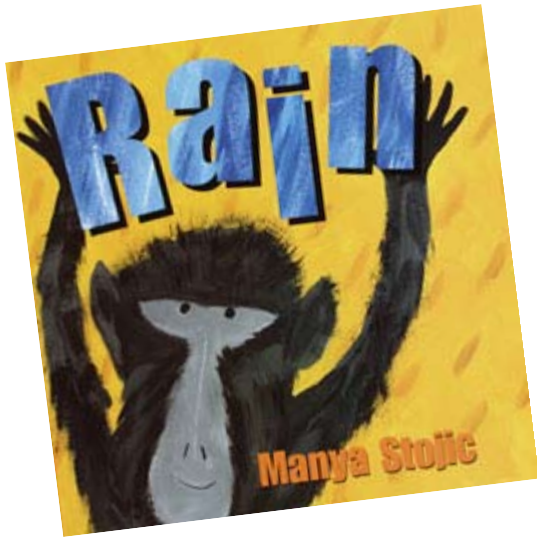
How Many...?

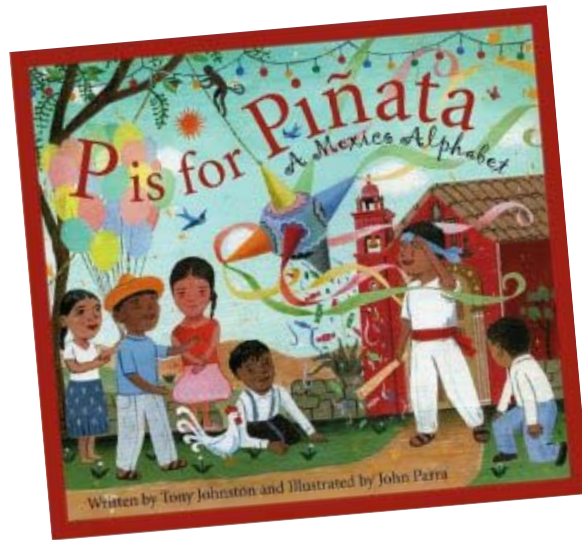
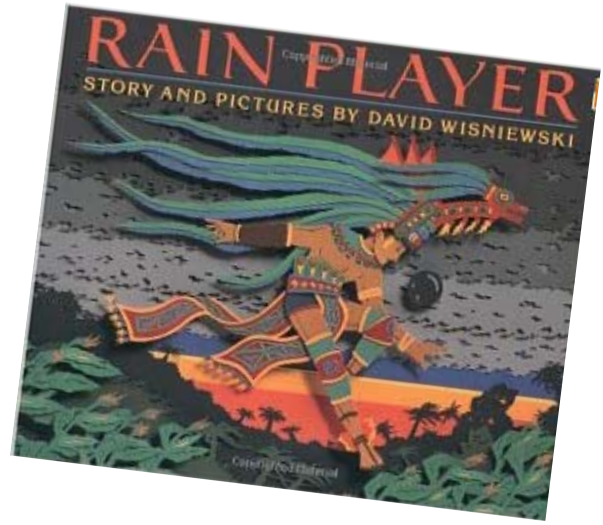
Children collect data and see how many times it rained on their story time day. Ask:

What do you notice about our T-chart?





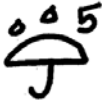


Did we have more days with rain or without rain? How do we know?







MARCH

				 1	 2	 3
 4	 5	 6	 7	8	9	10

weather symbols



Block Bar Graphs

What's Our Favorite...?

Children discover the group's favorite and least favorite pizza topping (or anything else) by asking a question and making a block bar graph. Suggested questions:

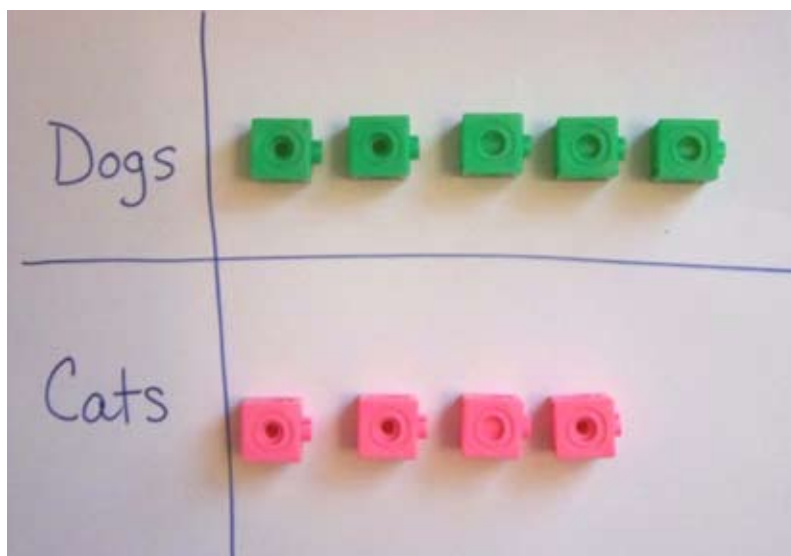
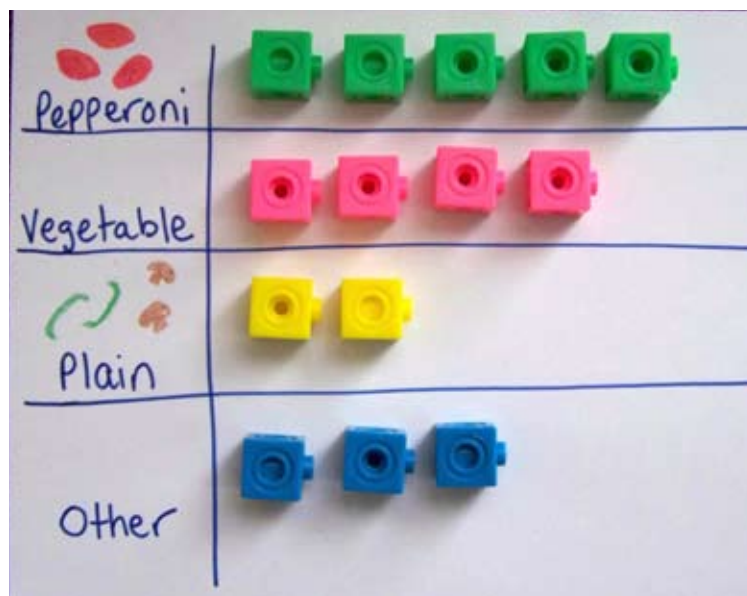
What do you notice about our graph?

What is our favorite pizza topping?

Which is the least favorite?

How do we know?

Let's count and write the numbers, telling us "How many?" for each topping.



Which has more?

Pictographs

When Are Our Birthdays?

Children participate in making a pictograph, placing a figure in the column next to the month in which they were born.

Suggested questions:

What do you notice about our pictograph?

Which month has the most birthdays?

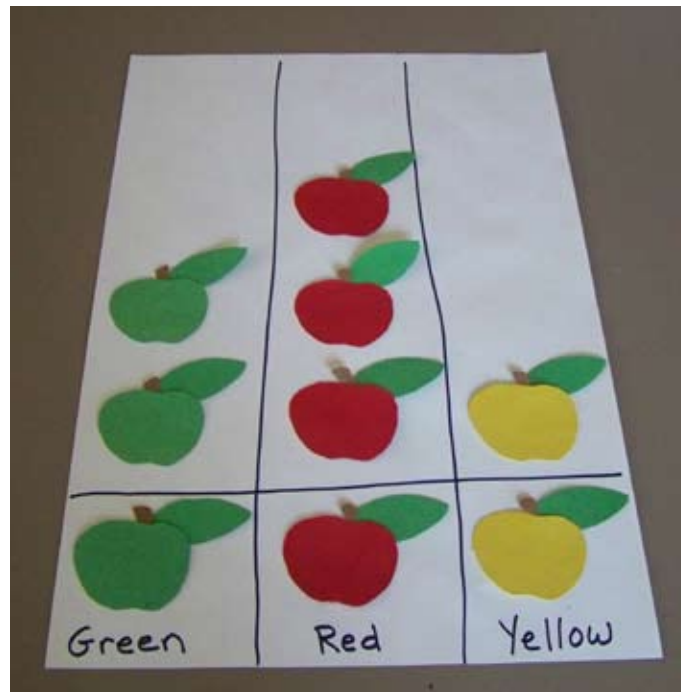
Which has the least? How do you know?

Is there a month when no one has a birthday?

Are there months with the same number of birthdays?

Let's count and write the numbers, telling us "How many?" for each month.





*What's our favorite apple?
This pictograph gives us the answer.*

Representing Data

How we represent, organize and communicate the data we collect depends on the amount and type.

We may take notes, make drawings, write down measurements. We might organize the data into charts and graphs in order to analyze it more carefully and look for patterns and relationships.

A computer is an excellent tool we use to store, organize and represent large amounts of data in graphs and charts in a variety of styles.

Pie graph

Where Were We Born?

Children make a “live” pie graph to see who was born in their home state, who was born in other states and who was born in other countries.

To make the graph: Sort the group. Everyone born in Our (your home state) State makes a set (group), everyone born in Other States makes a group and everyone born in Other Countries makes a group.

Everyone joins hands to make a circle with each of the sorted groups standing together (see illustration).

A piece of colored yarn is placed around the entire group so that each group is standing together on the edge of the circle.

Make the graph by placing yarn from the center of the circle to the edge of the circle, dividing the groups. Ask:





What do you notice about our graph?

Where were most of us born? How do you know?

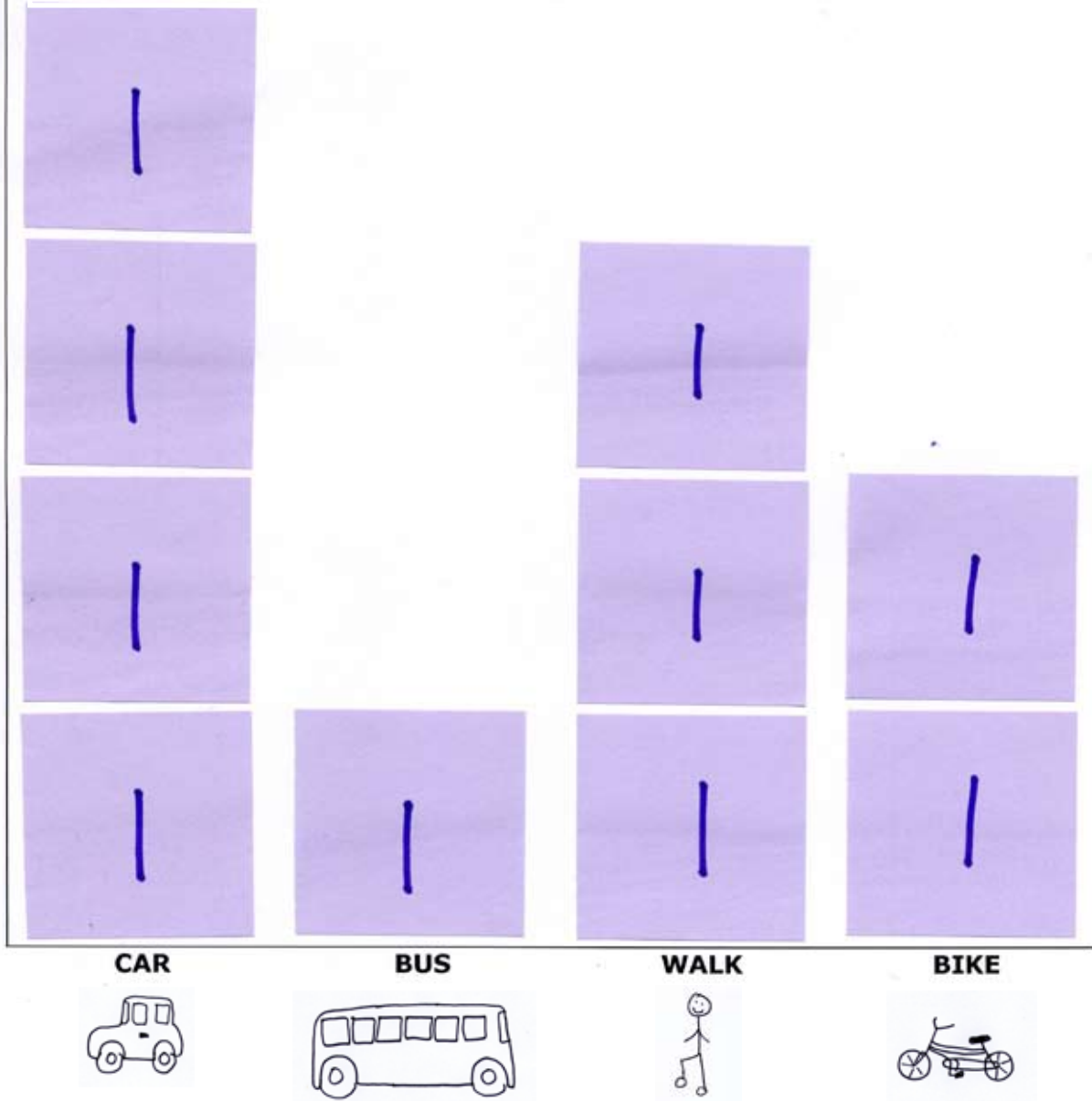
What else can we tell from looking at our graph?



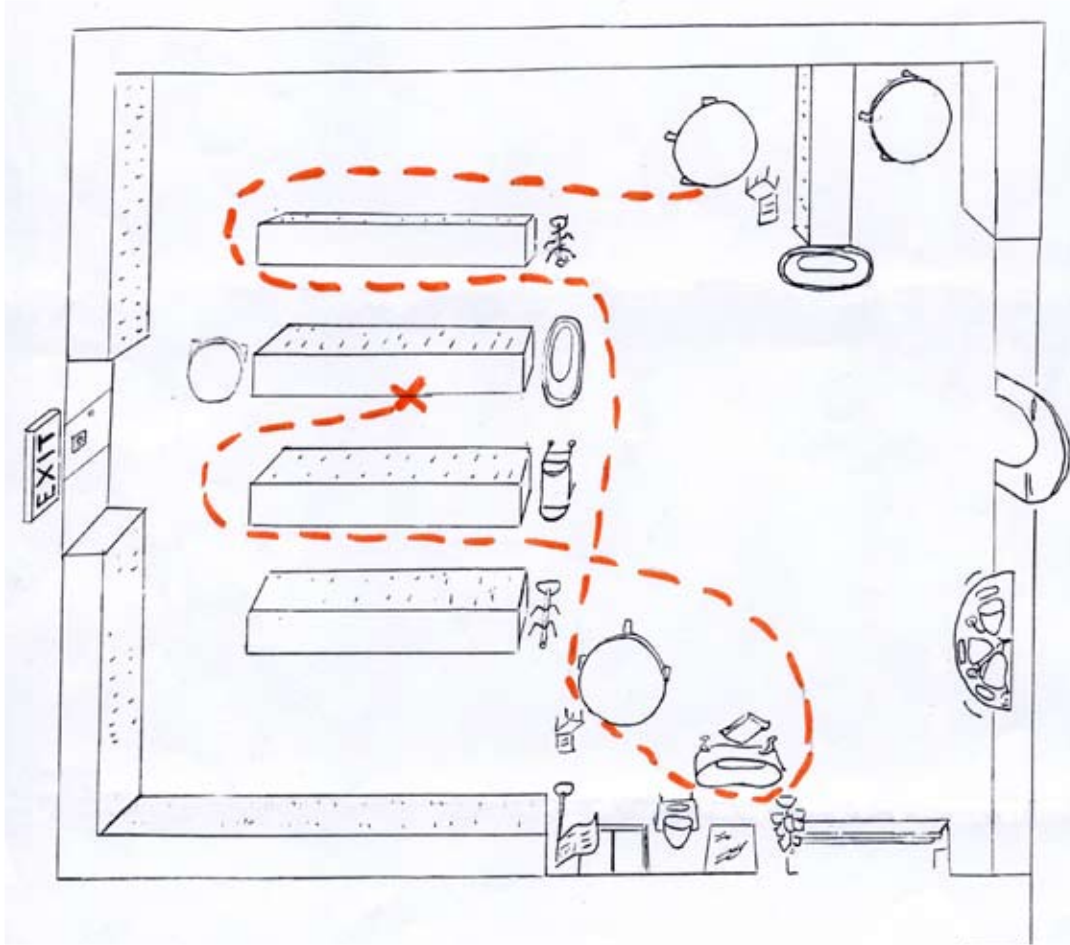
Tally Chart

SHAPE	TALLY OF	# OF
	1	6
		3
		5
		14

HOW WE GOT TO THE LIBRARY TODAY



Treasure Hunt



Our Room



Neighborhood Map



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Webinar Archive

at www.mothergooseprograms.org

**What's the BIG Idea?
An Overview**

**Same and Different:
Sorting Together**

**Make a Splash with
What's the BIG Idea?
at your Library**

Finding Patterns Everywhere

**The Shape of Things:
Geometry for Young Children**

**More Than Counting
Numbers & Operations**

Discovery Centers

Sale!

**What's the BIG Idea?™ Starter Kit
\$299 until July 1**

Webinar sale only!

Code: 426

Activities

Articles

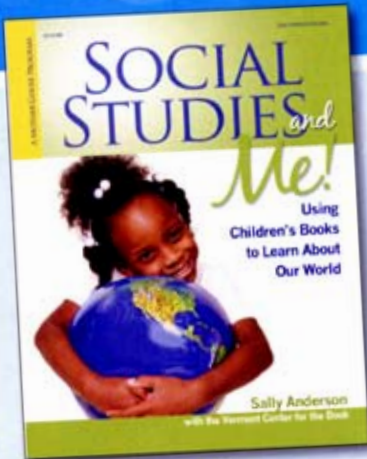
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1 P.M. EDT

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Social Studies and Me!

Using Children's Books to Learn About Our World
Sally Anderson with The Vermont Center for the Book

Young children are naturally interested in their world. They are learning to understand who they are, who their family members are, and what it means to have friends. They are curious about their communities, who lives and works there, and how things are made. They are beginning to ask questions about their environment and the greater world.



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