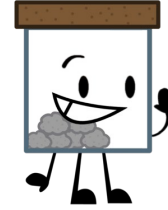# DATA KIDS

Charts Rock Activity

Data Kids: Charts Rock!
Presented by: Vanessa Lam, Tableau Student Ambassador

Overview
In this activity, we will use physical objects (e.g., rocks and dry beans) to mark the occurrence of an event, putting them into jars to visualize them, and finally translating that data into a digital format to use in Tableau.

This is meant to be an introduction to data concepts and data visualizations, appropriate for kids aged 5-8. Some children may need adult supervision, while others can complete the steps independently. Family participation is encouraged.

Learning Objectives
Through this lesson you will learn:
- How to collect data
- The connection between the real world and data visualizations
- The visual impact of bar charts

Supply List
- Many rocks, pebbles, marbles, dried beans, or anything else of a similar size. Please ensure these items are approximately the same size as each other
- One (ideally clear) jar for each participant in the activity
- Extra Credit – Excel
- Extra Credit – Tableau Public

Warm-Up
Data is all around you in daily tasks. Begin to think about activities you do every day and have a discussion about your daily activities. How many times do you brush your teeth? Take out the trash? Say "hi" to friends at school? Feed a pet? This is all data!

Instructions

1. Choose an event that you want to track. It should be something that everyone who participates does multiple times per day. Some other examples include washing your hands, eating a snack, or drinking water.
2. Set out a jar for each person involved in the activity and label them with their names. The more participants, the better (ideally at least two)!
3. Each time someone does this activity, add a rock to the jar.
   - Discussion: What does the rock represent?
4. After about a week, observe the jars & count the number of rocks in each jar.
   - Discussion: Does one of them have more rocks than the others? What does this mean?
   - Discussion: Who did the activity the most this week?
   - Discussion: Who did the activity the least this week?
5. Continue this activity for as long as you like! The longer the activity, the more data you will collect.

Extra Credit: Family Edition

1. Create a simple table in Microsoft Excel, using the example below as a guide. The first column of the table will be the participant's name and the second column will be the number of times an activity is completed. In the example, we want to track how many times each participant washed their hands during a certain length of time.

Person's name	Hand Wash Count

2. Add the participant's names in the first column, one per row

| Person's name	Hand Wash Count
William	
Naynay	
Charlie	
Cami	

3. At the end of the activity, enter the data into the table by counting the number of rocks in each participant's container and then write that number next to the participant's name in the 'Hand Wash Count' column. Don't forget to save your data set!

Person's name	Hand Wash Count
William	27
Naynay	35
Charlie	18
Cami	23
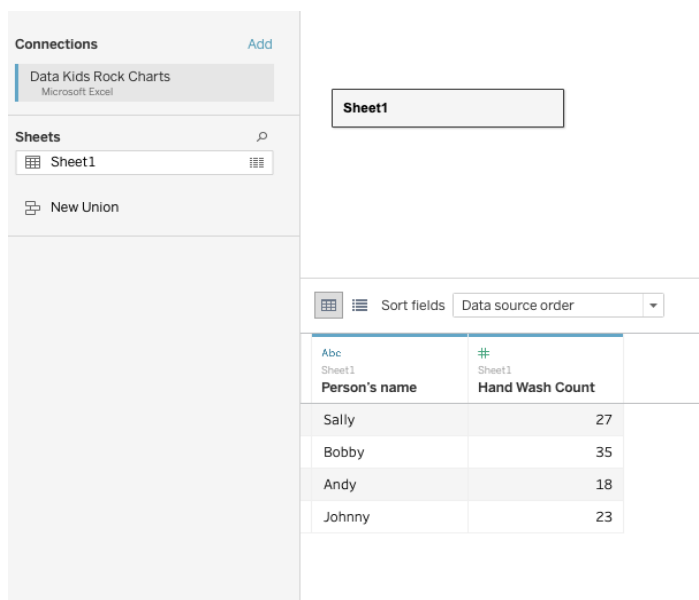
What's next?

With the help of an adult, use your table, and create a viz in Tableau. Download
Tableau Public for free today or use Tableau Desktop, if you have it.

4. Open Tableau, navigate to the left-hand pane and connect to your data set by

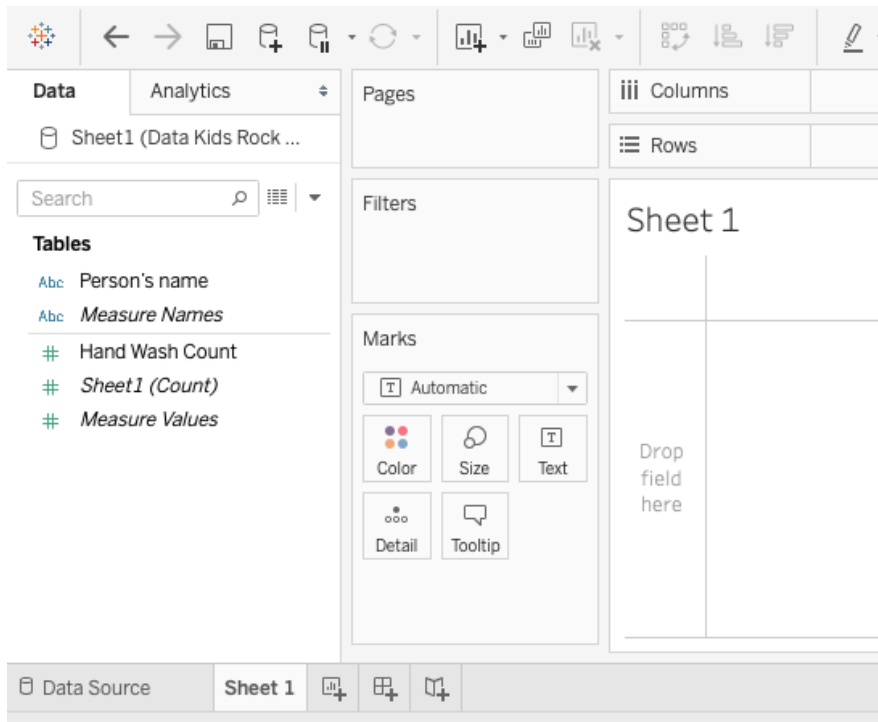   locating and opening your saved Excel file
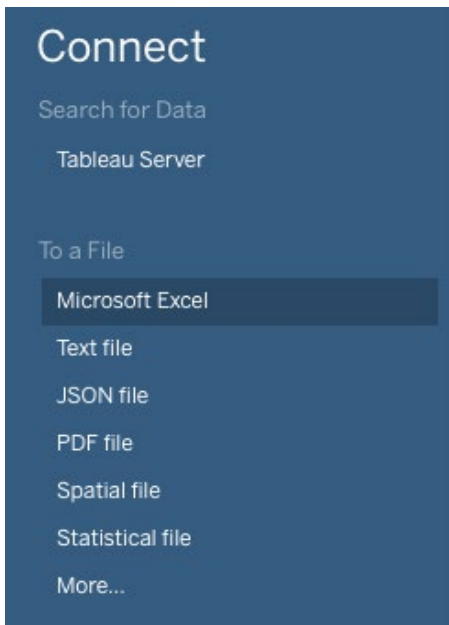
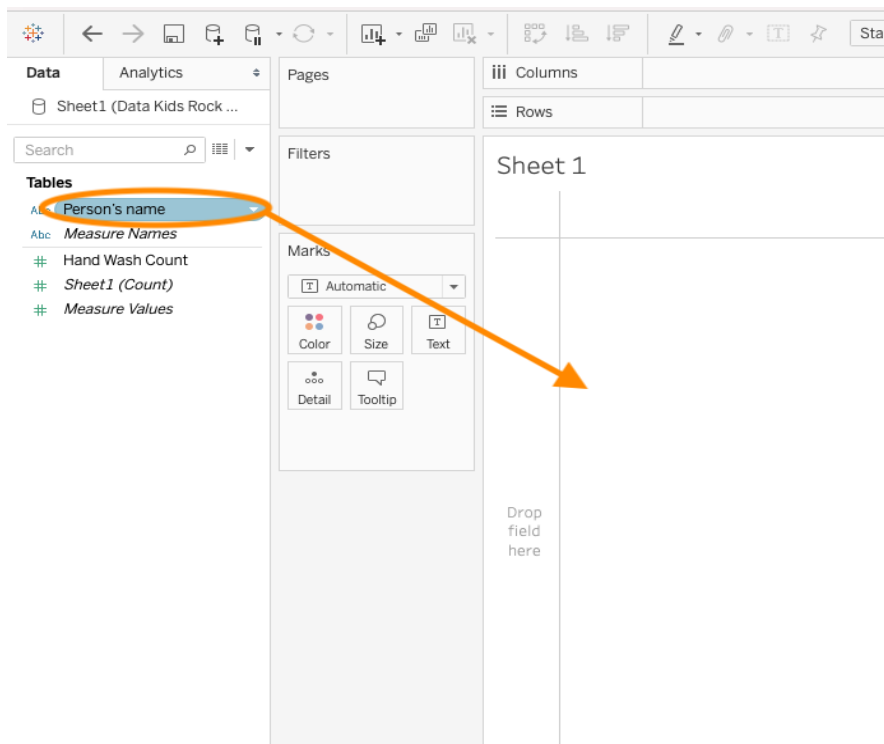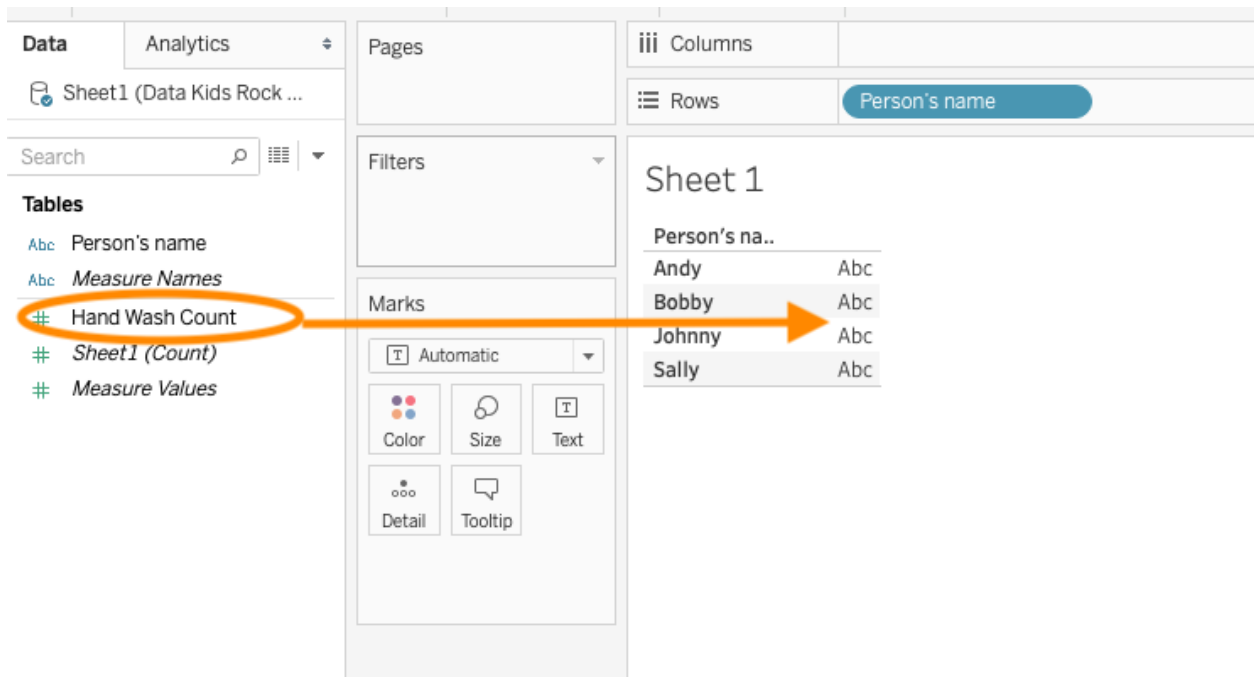5. Click on the "Data Sources" tab to check out your data!

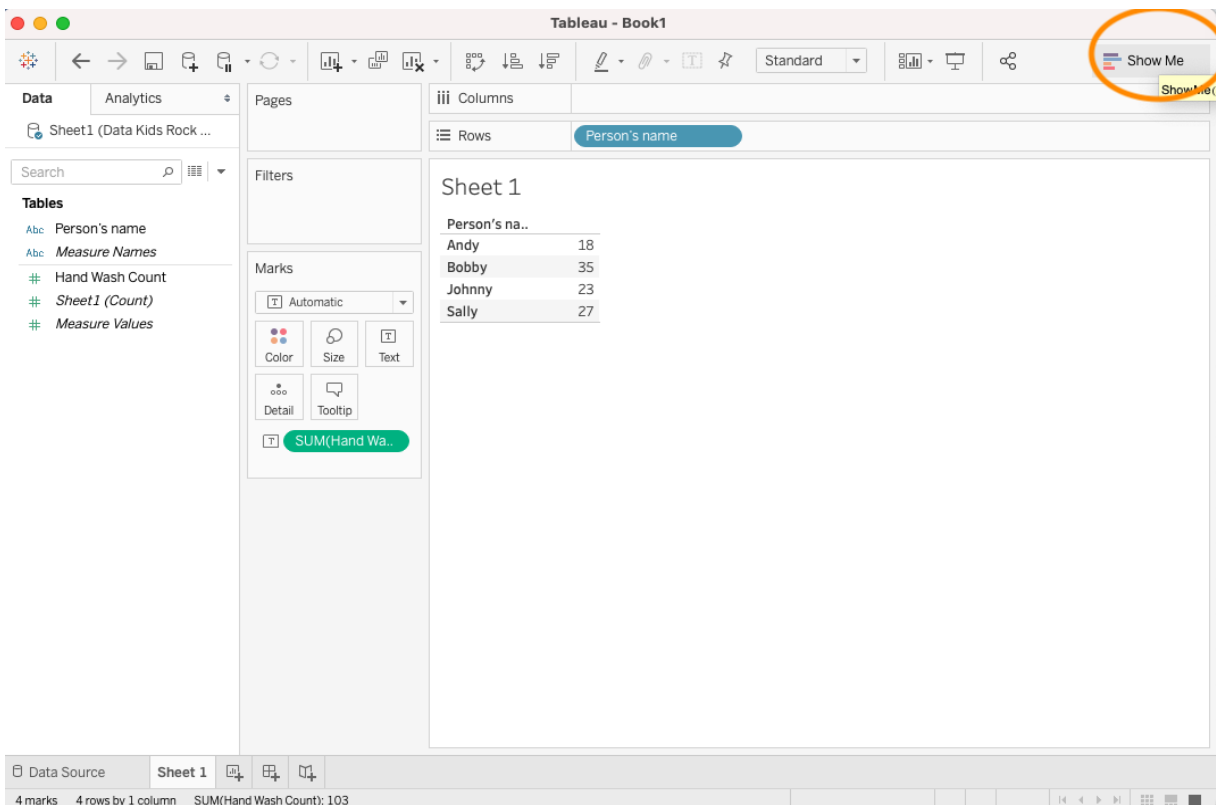6. Click on tab "Sheet 1" to begin building your bar chart

7. Click and drag "Person's Name" into the center of the sheet

8. Click and drag your activity count into the column that currently reads "Abc".


9. Click on the "Show Me" button in the upper right corner of the screen. If you can't see it make sure that you're maximizing your window!

10. Choose the Bar Graph visualization

11. Congratulations, you have made a bar graph with your own data! Now study it, see what other questions you might be able to ask and answer with graphs, and keep collecting more data! You can also find more cool vizzes on Tableau Public – see the next page for examples.
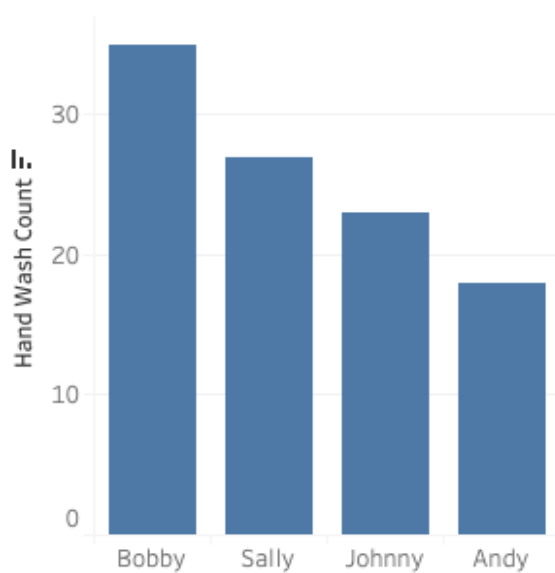
Adults – Share what your child learned and their creations across social media using the hashtag #DataKids. And if you publish any of the visualizations to Tableau Public, be sure to add #DataKids so other kids see the awesome work!

Fun Tableau Public vizzes to check out!

- [Data Kids: My Favorite Songs](#)
- [Cami's Favorite Disney Animated Movies](#)
- [The Spells of Harry Potter](#)
- [Sea Turtles in Curaçao](#)
- [What Emoji Say About Music](#)
- [Disney's Heroines](#)