Overview: You will design, execute, analyze and display data from a self-created study.

Materials:

* notes from class
* tablet
* calculator, notebook, pencil
* Google Suite- to record, chart, and analyze data

Vocabulary Addressed:

* mean
* outlier
* median
* mode
* statistical question
* box and whisker plot
* interquartile range
* population (sample size)

Directions:

1. Come up with your own statistical question, along with options for you will ask to other students, teachers, family, and friends. I must approve of your question before you continue.
2. Ask your question to at least 50 people. You may ask more people, but 50 people is the minimum. Record your data on your Google spreadsheet (share your spreadsheet with me) or another piece of paper (turn in).
3. Sort your data: arrange your data in chronological or numerical order. Label each piece or category. I must approve of your work thus far (it will make moving onto the next step easier).
4. Find the mean, median, mode, interquartile range of data. You can use a calculator for this, though you *must* show your work on a separate sheet of paper (this will be submitted with your rubric as a hard copy).
5. On your Google spreadsheet, answer the following questions in paragraph form. You will lose points if you fail to follow this direction.
   1. What question did you ask others?
   2. To whom did you ask your question? Why did you chose *these* people?
   3. What chart type did you use to display your results? Why?
   4. What was the mode response? Median response? Mean response?
   5. What was the interquartile range of your data? What does each quartile represent?
   6. Was there any outlier? How did this affect your results?
   7. Anytime we ask a question to someone else, we try to anticipate how they will respond. Was there anything surprising about your results?
6. Create a visual presentation of your project—this can be done online via Google or can be a poster board. Up to you, but all pieces here MUST be included in presentation!
7. Review the rubric—I will use this to grade you!
8. Have fun!