

**Statistics—Spring Final Project 2017  
AKA  
Knowledge Report**

Option 1: Work with a single teacher to gather data you want to analyze.

Option 2: Work with a department head to gather data you want to analyze.

Option 3: Come up with an independent study. (pre-approval needed)

- **Write a Hypothesis about something that you find interesting and that can be tested using data. (Population size must be a minimum of 200)**
- **Design a study that collects and analyses data to confirm or reject your hypothesis.**
- **Write a report that includes as many of the topics below as you describe not only the results of your analysis but also the process. (Be as detailed as possible so the reader is clear what you were trying to show and what steps you took to get there).**

**~Each report should attempt to include (but is not limited to)~**

2-Variables	1-Variable
Box Plots	Histograms
IQR	Z-scores--percentiles
Quartile	Confidence Intervals
Mean/Mean line of best fit	Proportion Predictions
median/median line of best fit	Empirical Rule
Root Mean Square Error--(Margin of Error)	Quartile
Scatter Plots	Normal Distribution
Bar Graphs	Pie Charts
Frequency Tables	Sample Population
Pie Chart	Calculate Sample Size
Standard Deviation	Population mean vs Sample Mean
Normal Distribution	Probability
Sample Population	Margin of Error
Population Mean vs Sample Mean	Box Plot
Outliers	IQR
Central Tendencies	Outliers
Percentile Rank	Central Tendencies
5-point summary	Percentile Rank
Survey	5-point summary
	Survey

**(Submit all work to [dwetzel@tamdistrict.org](mailto:dwetzel@tamdistrict.org) using the following file name):**

**5<sup>th</sup> period students: "5-Final-LastName.FirstName-Document Title"**

(You can submit via google docs/pages/sheets or via e-mail all using the file name above)