**AP Statistics Unit 1 Reading Guide** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

You should utilize this reading guide to help you identify the important aspects of statistics. Students who take the time to complete this with positive intent will have a deeper understanding of the material and thus are likely to find greater success in this course.

* You will find trigger words next to much of the vocabulary.
	+ When prompted to Define, generate a definition for the word. This doesn’t have to be from the book, and often shouldn’t be. Generate your own definition.
	+ When prompted for an Example, generate an example for the word. This could be a list of things the word is (for Example, an Individual could be a person, an animal, a seed, or an entire country).
	+ Sometimes a word will come back up in our Reading Guide, and you will be prompted to Refine your understanding. Recognize that the first time you were introduced to the word it may have been at a basic level. That basic level should be left behind as you Refine your understanding of the material. For example, you will be introduced to Spread as the smallest and largest values, but later on these should be almost entirely abandoned as you Refine your understanding of stronger measures of spread.

**Set 1**

Individual (Define/Example):

Categorical Variable (Define/Example):

Quantitative Variable (Define/Example):

Distribution (Define/Example):

Bar Graph (Example):

Pie Chart (Example):

Summary of a Quantitative Distribution (SOCS). This is how we describe a quantitative distribution. These four things allow us to get a sense of the distribution and lead to important concepts throughout the course.

 Shape (Define):

 Outliers (Define):

 Center (Define):

 Spread (Define):

Stemplot (Example):

Histogram (Example):

**Set 2**

Relative Frequency (Define):

Cumulative Frequency (Define):

Percentile (Define):

Ogive (Define/Example):

Center (Refine): The word center should not be used in describing a distribution, nor should the word average. There are two main types of center, and henceforth you should avoid being ambiguous about center when you can be specific.

 Mean (Define):

 Median (Define):

Relation between Mean and Median in a Distribution (Example):

Spread (Refine): There are different types of spread, and some are more appropriately used with median while others are more appropriately used with mean.

Quartile 1 (Define):

Quartile 3 (Define):

Interquartile Range or IQR (Define/Example):

Outliers (Refine):

The Five Number Summary (Define):

Boxplot (Define/Example):

Modified Boxplot (Define/Example):

**Set 3**

Standard Deviation, and it’s Properties (Define):

Choosing a Summary (Example):

Linear Transformation (Define/Example):

Effect of a Linear Transformation (Define):

**Set 4**

Density Curve (Define):

Mean and Median in a Density Curve (Refine):

Normal Distribution (Define):

Emperical Rule, or 68-95-99.7 Rule (Define/Example):

**Set 5**

Standardizing using z-Scores (Define/Example):

Standard Normal Distribution (Define):

Standard Normal Table (Define):

Finding Normal Proportions (Example):