**Unit 6: Statistics**

*Sixth Grade Mathematics*

**Unit Essential Question:** How do statistical methods help us better understand data so that conclusions can be made?

**Common Core Georgia Performance Standards:**

 **MCC6.SP.1.** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.

 **MCC6.SP.2.** Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.

 **MCC6.SP.3** Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.

 **MCC6.SP.4.** Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

 **MCC6.SP.5.** Summarize numerical data sets in relation to their context, such as by:

**a**. Reporting the number of observations.

 **b.** Describing the nature of the attribute under investigation, including how it was measured and its units of measurement

 **c.** Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.

 **d.** Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

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| **Acquisition Lesson 1****Concept:** Measures of Center **Standard(s):** CC6.SP.2, CC6.SP.3, CC6.SP.5**Lesson EQs:*** How can I describe the center of a set of data?
* How can I describe the spread of a set of data?
 | **Acquisition Lesson 2****Concept:** Measures of Variation**Standards(s):** CC6.SP.1, CC6.SP.3, CC6.SP.5**Lesson EQs:*** What conclusions can be drawn from data?
* How can I use data to compare different groups?
 | **Acquisition Lesson 3****Concept:** Statistical Displays**Standard(s):** CC6.SP.4 **Lesson EQs:*** What is the best way to organize a set of data?
* What kinds of graphs will best represent a given set of data?
* How do I choose and create appropriate graphs to represent data?
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