**6th Grade: Statistics and Probability**

**Common Core State Standards**

**Develop understanding of statistical variability.**

[**CCSS.MATH.CONTENT.6.SP.A.1**](http://www.corestandards.org/Math/Content/6/SP/A/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.

[**CCSS.MATH.CONTENT.6.SP.A.2**](http://www.corestandards.org/Math/Content/6/SP/A/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.

[**CCSS.MATH.CONTENT.6.SP.A.3**](http://www.corestandards.org/Math/Content/6/SP/A/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.

**Summarize and describe distributions.**

[**CCSS.MATH.CONTENT.6.SP.B.4**](http://www.corestandards.org/Math/Content/6/SP/B/4/)

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

[**CCSS.MATH.CONTENT.6.SP.B.5**](http://www.corestandards.org/Math/Content/6/SP/B/5/)

Summarize numerical data sets in relation to their context, such as by:

[**CCSS.MATH.CONTENT.6.SP.B.5.A**](http://www.corestandards.org/Math/Content/6/SP/B/5/a/)

Reporting the number of observations.

[**CCSS.MATH.CONTENT.6.SP.B.5.B**](http://www.corestandards.org/Math/Content/6/SP/B/5/b/)

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

[**CCSS.MATH.CONTENT.6.SP.B.5.C**](http://www.corestandards.org/Math/Content/6/SP/B/5/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.

[**CCSS.MATH.CONTENT.6.SP.B.5.D**](http://www.corestandards.org/Math/Content/6/SP/B/5/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.