

**SAU 50
Grade 6
Mathematics
Statistics and Probability**

Statistics: math that deals with collecting and analyzing data.

Probability: measure that an event is likely to happen.

SAU 50 District Competency:

Students will independently use their learning to interpret the validity of data presented and the factors that contribute to it.

Students will independently use their learning to collect and analyze data to answer a question.

Essential Questions

- Why is data collected and analyzed?
- How do people use data/displays to influence others?
- How can predictions be made based on data?

Acquisition

Students will demonstrate the following to meet the standards.

- I can collect a set of data to answer a statistical question that applies to a group or set and can describe its center, spread, and overall shape.
- I can find the mean, median, and mode of a set of numbers and demonstrate that it summarizes all of the values of the set with a single number.
- I can display data using plots on a number line, including dot plots, frequency graphs, histograms, circle graphs and box plots.
- I can analyze the data using quantitative measures of center, variability, describe any overall pattern, and any deviations.
- I can relate the shape of a data distribution to a specific measure of central tendency.

Standards

NH College and Career Ready Standards

Key to Standard Notation:

6.SP.1: 6 (*grade level*) **SP** (*domain: Statistics and Probability*) **1** (*number of the standard*)

Develop understanding of statistical variability.

6.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.

6.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.

6.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.

Summarize and describe distributions.

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

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

6.SP.5.a: Reporting the number of observations.

6.SP.5.b: Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.

6.SP.5.c: Giving quantitative measure 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.

6.SP.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.

[New Hampshire College and Career Ready Standards](#)

References:

National Governors Association Center for Best Practices, Council of Chief State School Officers. (2010). *Common Core Standards for Mathematics* (United States, National Governors Association Center for Best Practices, Council of Chief State School Officers). Retrieved August 10, 2016, from http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf

Math is fun/definitions. (n.d.). Retrieved April 17, 2017, from <http://www.mathisfun.com/definitions>