6th Grade - Unit 5: Math - Statistics and Probability

Content Area: **Mathematics**
Course(s): **Math 6, Generic Course**
Time Period: **Generic Time Period**
Length: **20 days**
Status: **Published**

Established Goals/Standards

Please choose the appropriate Goals/Standards from the Standards tab above.

MA.6.SP	Statistics and Probability
MA.6.SP.A	Develop understanding of statistical variability.
MA.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.
MA.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.
MA.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.
MA.6.SP.B	Summarize and describe distributions.
MA.6.SP.B.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
MA.6.SP.B.5	Summarize numerical data sets in relation to their context, such as by:
MA.6.SP.B.5a	Reporting the number of observations.
MA.6.SP.B.5b	Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
MA.6.SP.B.5c	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.
MA.6.SP.B.5d	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.

Essential Questions

Please add your Essential Questions by clicking on the Lists tab above.

- What are different numerical measures that describe data sets?
- What are the different ways that data can be represented?

Enduring Understanding

Please add your Enduring Understandings by clicking on the Lists tab above.

- Central tendencies can be used to represent numerical measures in a data set.

- Data can be represented by a dot plot, frequency table, histogram, and box and whisker plot.

Content

Students will be able to:

- Find and analyze the mean, median, and mode of a data set.
- Analyze a set of data by finding the range.
- Make frequency tables, dot plots, histograms, and box and whisker plots.
- Interpret frequency tables, dot plots, histograms, and box and whisker plots.
- Find and use measures of variability to describe and compare data sets.
- Relate the shape of a data display to how the data is distributed.
- Indentify a statistical question and to recognize and remove bias from statistical questions.

Vocabulary:

- Box and whisker plot
- Dot plot
- Frequency table
- Histogram
- Interquartile range
- Lower quartile
- Upper quartile
- Mean
- Median
- Mode
- Mean absolute deviation (MAD)
- Measure of center
- Measure of variability
- Outlier
- Range
- Statistical question

Assessments

Resources

- Pearson Math Course 1 textbook and online resources
- Teacher made flip-charts

- Web-based activities (mathplayground.com) (coolmath.com)
- Teacher made worksheets/assessments
- mad minutes
- NJCTL.org (PMI math)
- Pizzazz series of worksheets