Unit 5
Statistics and Probability

Grade 6
Math

Description:

In Unit 5, Students recognize statistical questions. They understand statistical variability and apply that understanding as they summarize, describe, and display distributions. They use various methods to represent and analyze data. Students also examine relationships among multiple representations of the same data set.

Standards:

Statistics and Probability	
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. 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.
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: 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), 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.

Enduring Understandings: Essential Questions:

- Data can be collected, organized, sorted, represented, and analyzed in a variety of ways.
- The results of a statistical investigation can be used to support or refute an argument.
- A statistical question should anticipate variability or more than one answer.

- How do you ask a question to collect statistical data?
- What is the best way to summarize data collected from a study?
- How can understanding and use of measures of central tendency be useful for interpreting and drawing conclusions about data?
- What does variability mean?
- What is the difference between measures of center and measures of variation?