**CCM6 Unit 13: Collect, Analyze, Display Data Vocabulary**

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| Analyzing Data | Process of inspecting data to see what it means |
| Box Plot | A method of visually displaying a distribution of data values by using the median, quartiles, and extremes of the data set. A box shows the middle 50% of the data |
| Center | Single number that we can use to stand in for the whole data set; typical value |
| Cluster | A group of things or persons close together |
| Collecting Data | Process of gathering information |
| Continuous Data | Data that can take any value |
| Data | Values such as counts, ratings, measurements, or opinions that are gathered to answer questions. |
| Discrete Data | Data that would not be represented with fractional parts such as people, tents, records, etc. |
| Distribution | The arrangement of values in a data set |
| Dot Plot | Graphical display of data using dots |
| Five-Number Summary | The minimum, value, lower quartile, median, upper quartile, and maximum value |
| Frequency Table | A list of items or intervals that shows the number of times, or frequency, with which they occur. |
| Gap | A break or opening |
| Histogram | A display that shows the distribution of numeric data. The range of data values, divided into intervals, is displayed on the horizontal axis. The vertical axis shows frequency. |
| Inter-Quartile Range | A measure of variation in a set of numerical data, the inter-quartile range is the distance between the first and third quartiles of the data set  Example: for the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the inter-quartile range is 15 - 6 = 9. |
| Interpreting Data | Understand what the data is saying |
| Interval | A set of real numbers with the property that any number that lies between two numbers in the set is also included in the set |
| Line Plot | A quick, simple way to organize data along a number line where the X's (or other symbols) above a number represent how often each value is mentioned |
| Lower Quartile | For a data set with median m, the first quartile is the median of the data values less than m  Example: for the data set {1, 3, 6, 7, 10, 12, 14, 15, 22,120}, the first quartile is 6. |
| Maximum Value | The greatest value in a data set |
| Mean | A value that represents the "evening out" of the values in a set of data |
| Mean Absolute Deviation | The average distance of all data values from the mean of the set |
| Measures of Center | Establish a central location in the data set |
| Measures of Variability | Establish the degree of variability (or scatter) of the individual data values and their deviations from the measures of center |
| Median | The number that is the midpoint of a set of data |
| Minimum Value | The lowest value in a data set |
| Mode | The data value that occurs the most |
| Outlier | A value that lies far from the "center" of a distribution |
| Peak | Being at the point of maximum frequency, intensity, use, etc. |
| Quartiles | One of the values of a variable that divides the distribution of the variable into four groups having equal frequencies |
| Range | The difference between the least value and the greatest value in a data set |
| Skewed | Asymmetry in a frequency distribution |
| Spread | Describes how the data lies |
| Statistics | The practice of collecting and analyzing data in large quantities |
| Summary Statistics | include quantitative measures of center (median and median) and variability (interquartile range and mean absolute deviation) including extreme values (minimum and maximum), mean, median, mode, range, and quartiles |
| Symmetrical | Characterized by or exhibiting symmetry; well-proportioned, as a body or whole; regular in form or arrangement of corresponding parts |
| Upper Quartile | For a data set with median m, the third quartile is the median of the data values greater than m  Example: for the data set {2, 3, 6, 7, 10, 12, 14,15, 22, 120}, the third quartile is 15. |
| Variability | Degree to which data are spread out around a center value |