| **Standard** | **Mastery Level** | **Statements** |
| --- | --- | --- |
| S.ID.1 |  | * I can represent data with plots on the real number line (dot plots, histograms, and box plots).
* I can choose appropriate graphs to be consistent with numerical data: dot plots, histograms, and box plots.
 |
| S.ID.2 |  | * I can use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, mean absolute deviation, standard deviation) of two or more different data sets.
 |
| S.ID.3 |  | * I can interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
* I can examine graphical representations to determine if data are symmetric, skewed left, or skewed right and how the shape of the data affects descriptive statistics.
 |
| S.ID.5 |  | * I can summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies).
* I can recognize possible associations and trends in the data.
 |
| S.ID.6 |  | * I can represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
 |
| S.ID.6a |  | * I can decide which type of function is most appropriate by observing graphed data, charted data, or by analysis of context to generate a viable (rough) function to best fit.
* I can use this function to solve problems in context.
* I can emphasize linear, quadratic, and exponential models.
 |
| S.ID.6c |  | * I can fit a linear function for a scatter plot that suggests a linear association.
 |
| S.ID.7 |  | * I can interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.
 |
| S.ID.8 |  | * I can compute (using technology) and interpret the correlation coefficient “r” of a linear fit.
* After calculating the line of best fit using technology, I can describe how strong the goodness of fit of the regression is, using “r.”
 |
| S.ID.9 |  | * I can distinguish between correlation and causation.
 |