

Unit 02 - Data Display

Content Area: **Math**
Course(s): **Prob/Stat A**
Time Period: **Semester 1**
Length: **7 weeks**
Status: **Published**

Unit Introduction

Standards

MA.S-ID.A.1	Represent data with plots on the real number line (dot plots, histograms, and box plots).
MA.S-ID.A.2	Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.
MA.S-ID.A.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
MA.S-ID.B.5	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). Recognize possible associations and trends in the data.
MA.S-ID.B.6a	Fit a function to the data (including with the use of technology); use functions fitted to data to solve problems in the context of the data.
MA.S-ID.B.6b	Informally assess the fit of a function by plotting and analyzing residuals, including with the use of technology.
MA.S-ID.B.6c	Fit a linear function for a scatter plot that suggests a linear association.
MA.S-ID.C.7	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.
MA.S-ID.C.8	Compute (using technology) and interpret the correlation coefficient of a linear fit.
MA.S-ID.C.9	Distinguish between correlation and causation.

Essential Questions

Content

- Lesson 1 - Frequency Distributions
- Lesson 2 - Graphs
- Lesson 3 - Linear Regressions

Skills

- Construct and interpret dot plots, stem plots, histograms, and cumulative frequency plots.
- Describe center, shape, spread, clusters, gaps, outliers and other unusual features.
- Measure position using quartiles, percentiles, and standardized (z) scores
- Plot points in a coordinate plane
- Substitute values into a formula
- Use box plots (and modified) with the five number summary
- Use dot plots, back-to-back stem plots, and parallel box plots