SP Statistics and Probability

- **8.SP.A Investigate patterns of association in bivariate data.**
  - **8.SP.A.1 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.**
    - Create scatter plots (8-CC.15)
    - Identify trends with scatter plots (8-CC.16)
    - Outliers in scatter plots (8-DD.8)
  - **8.SP.A.2 Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line and informally assess the model fit by judging the closeness of the data points to the line.**
    - Scatter plots: line of best fit (8-DD.9)
  - **8.SP.A.3 Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept.**
    - Scatter plots: line of best fit (8-DD.9)
  - **8.SP.A.4 Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables.**
    - Find probabilities using two-way frequency tables (8-EE.4)
  - **Checkpoint opportunity**
    - Checkpoint: Scatter plots (8-DD.)
    - Checkpoint: Lines of best fit (8-DD.)
    - Checkpoint: Linear models: interpret and solve (8-DD.)
    - Checkpoint: Two-way frequency tables (8-EE.)