

Eustace High School Statistics Objectives

1st Six Weeks

- Descriptive / Inferential Statistics
- Variables and Types of Data
- Observational / Experimental Studies
- Measures of Central Tendency
- Randomness
- Visual Displays of Data
- Normal Distributions
- Z-Scores
- Empirical Rule
- Quartiles / Normal Models
- Bivariate Categorical Data

2nd Six Weeks

- Simpson's Paradox
- Scatter Plots
- Association / Correlation
- Regression Lines
- Residuals
- Coefficient of Determination
- Line of Best Fit
- Outliers / Influential Points
- Transformations
- Random Numbers
- Bias
- Sampling Techniques

3rd Six Weeks

- Simulations
- Probability Rules
- Probability Distributions
- Expected Values
- Standard Deviation
- Distributions
 - Modeling
 - Normal
 - Geometric
 - Sampling
 - Binomial

4th Six Weeks

- Central Limit Theorem
- Sampling Distribution of Means
- Sampling Distribution of Proportions
- Confidence Intervals for Means
- Confidence Intervals for Proportions
- Margin of Error
- Condition Checks
- Errors and Power

5th Six Weeks

- Hypothesis Testing
 - Null / Alternative Hypotheses
 - Tests for Proportions
 - Tests for Means
- T-Distributions
- Confidence Intervals for Differences
- Hypothesis Tests for Differences

6th Six Weeks

- Chi-Square Tests
 - Goodness of Fit
 - Homogeneity
 - Two-way Tables
- Tests Using the Graphing Calculator
- Independent Statistic Projects