Scope and Sequence 2025 - 2026
Please Note: All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended timeline and sequence to be used voluntarily by teachers for planning purposes. Specific question regarding when content will be addressed in a specific course are best answered by the individual teacher.
Course Resources
Publisher Resource: Statistics and Probability with Applications 4th edition, Bedford, Freeman & Worth Publishing Group LLC (Clever – use your active directory; does not support Internet Explorer) **Supplemental Resources:** Khan Academy (does not support Internet Explorer)
In Probability and Statistics, instructional time will emphasize four areas:
(1) creating and interpreting data displays for univariate and bivariate categorical and numerical data; (2) comparing and making observations about populations using statistical data, including confidence intervals and hypothesis testing; (3) extending understanding of probability and probability distributions and (4) developing an understanding of methods for collecting statistical data, including randomized trials.

Quarter 1 (August 11 – October 10)
Chapter 1: Analyzing One-Variable Data Students will distinguish between categorical and quantitative variables and make appropriate graphs (dot plots, boxplots, histograms, stem plots, bar charts, and pie charts) for these variables. Students will then compare data using calculations such as mean, median, and standard deviation.

Chapter 2: Modeling One-Variable Quantitative Data
Students will calculate location of data using percentiles and normal distributions. They will calculate z-scores and use these to calculate proportions above, below or between a given set of values.

Chapter 3: Analyzing Two-Variable Data
Students will create and interpret scatterplots for a given set of data. They will calculate a linear regression line and describe the correlation between two variables. They will make predictions for data and calculate residuals.

Quarter 2 (October 14 – December 19)

Chapter 4: Collecting Data
Students will determine if what type of sampling method was used in each study and if that method will lead to bias in the sample. Students will distinguish between observational studies and experiments and design experiments.

Chapter 5: Probability
Students will calculate the probability of random events.

Chapter 6: Random Variables
Students will calculate probabilities of discrete and continuous random variables. They will calculate the mean and standard deviation of discrete random variables and calculate probabilities using a binomial distribution.

Quarter 3 (January 5 – March 12)

Chapter 6: Random Variables
Students will calculate probabilities of discrete and continuous random variables. They will calculate the mean and standard deviation of discrete random variables and calculate probabilities using a binomial distribution.

Chapter 7: Sampling Distributions
Students will calculate means and standards of sampling distributions with proportion and with means. Then they will calculate probabilities involving proportions and means,

Chapter 8: Estimating a Parameter
Students will calculate and interpret confidence intervals for means and proportions.

Quarter 4 (March 23 – May 29)

Chapter 9: Testing a Claim
Students will state an appropriate null and alternative hypothesis and perform a significance test (using either means or proportions) to test a claim.

Chapter 10: Comparing Two Populations or Treatments
Students will state an appropriate null and alternative hypothesis a perform a significance test (using either means or proportions) to test a claim involving two sets of data.