# **Unit 05 - Confidence Intervals and Hypothesis Testing**

Content Area: Math

Course(s): Prob/Stat A
Time Period: Semester 2
Length: 7 weeks
Status: Published

## **Unit Introduction**

## **Standards**

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-IC.B.4 Use data from a sample survey to estimate a population mean or proportion; develop a

margin of error through the use of simulation models for random sampling.

## **Essential Questions**

### **Content**

- Lesson 1 Confidence Intervals
- Lesson 2 Hypothesis Testing

### **Skills**

- · Check assumptions for confidence intervals and significance tests
- Conduct significance tests.
- Determine the minimum sample size for finding a confidence interval for the mean.
- Find confidence interval for the mean when population standard deviation is known or n is greater or equal to 30.
- · Find critical values for the z test
- Sate the five steps used in hypothesis testing
- State the null and alternative hypothesis
- Test means for large samples, using the z test
- Understand the definitions used in hypothesis testing