

# Unit 5 - Statistics and Probability

Content Area: **Mathematics**  
Course(s):  
Time Period: **May**  
Length: **6-8 weeks**  
Status: **Published**

## Unit Overview

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Unit 5 focuses on the Statistics and Probability (SP) domain. Students will construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities; know that straight lines are widely used to model relationships between two quantitative variables; use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept; understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table.

## Essential Questions

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“Why is learning mathematics important?”

## Content

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Scatter Plots

Lines of Best Fit

Two-way tables

Descriptive Statistics

Measures of Variation

Analyze Data Distribution

## Skills

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Determine and describe how changes in data values impact measures of central tendency.

Organize and construct scatter plots and two-way tables.

Construct lines of best fit.

## Assessments

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Self-Check Quiz

Chapter Tests

Online Standardized Test Practice

Chapter Project

Teacher Observation

## Lessons/Learning Scenarios

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Glencoe Math Course 3 Text

Chapter 9 Lessons 1-6

## Standards

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CCSS.Math.Content.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.
CCSS.Math.Content.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.
CCSS.Math.Content.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.

CCSS.Math.Content.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.

## Resources

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Glencoe Math, Course 3, McGraw-Hill, 2013

Graphing Calculators

Coordinate Planes Master