

Statistics CP Curriculum Map

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**Resource & Topics**

**SCCCR Standards**

**1st nine weeks**

**Unit 1: Data Collection and Statistical Studies**

<i>Chapter/Section</i>	<i>Title of Section</i>
1.1	What is Statistics?
1.2	Random Samples
1.3	Intro to Experimental Design

PS.SPCR.1;  
SP.SPMJ.6

**Unit 2: Organizing Data Using Graphs**

2.1	Bar Graphs, Circle Graphs, Time Plots
2.2	Frequency Distributions and Histograms
2.3	Stem and Leaf Displays

PS.SPID.1; 2; 3  
6.DS.4;  
7.DSP.3;

**Unit 3: Averages, Variation, and Position**

3.1	Measures of Central Tendency
3.2	Measures of Variation
3.3	Percentiles and Box and Whisker Plots

6.DS.2; 3;  
7.DSP.3; 4

**Unit 4: Regression and Correlation**

4.1	Intro to Paired Data and Scatter Diagrams
4.2	Linear Regression
4.3	Linear Correlation Coefficient

PS.SPID.6; 7; 8; 9; 10;

**Unit 5: Probability Theory**

5.1	What is Probability?
5.2	Probability Rules- Compound Events
5.3	Trees and Counting Techniques

PS.SPCR.2; 3; 4; 5; 6; 7;  
8  
PS.SPMJ.2  
PS.SPID.5

**Unit 6: Probability Distribution**

6.1	Random Variables and Probability Distributions
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PS.SPMD.1; 2; 3; 4; 5; 6;

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- 6.2 Binomial Probabilities
- 6.3 Additional Properties of the Binomial Distribution

**2nd nine weeks**

**Unit 7: Normal Distribution**

- 7.1 Graphs of Normal Probability Distributions
- 7.2 Standard Units and Areas Under the Standard Normal Distribution
- 7.3 Areas Under the Normal Curve
- 7.4 Normal Approximation to the Binomial Distribution

PS.SPID.4;  
PS.SPMD.1; 3; 6

**Unit 8: Statistical Research Project**

PS.SPMJ.3; 5; 6;

**Unit 9 Introduction to Sampling Distributions**

PS.SPMJ.1;

- 8.1 Sampling Distributions
- 8.2 The Central Limit Theorem

**Unit 10 Estimation**

PS.SPMJ.4;

- 9.1 Estimating "mu" with large samples
- 9.2 Estimating "mu" with small samples
- 9.3 Estimation "p" in the Binomial Distribution
- 9.4 Choosing the Sample Size

**Unit 11 Hypothesis Testing**

PS.SPMJ.1; PS.SPMD.3

- 10.1 Introduction to Hypothesis Testing
- 10.2 Test Involving the Mean "mu" (Large Samples)
- 10.3 The P Value in Hypothesis Testing
- 10.4 Test Involving the Mean "mu" (Small Samples)
- 10.5 Tests Involving a Proportion