Please Note:

All standards are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course are best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

Publisher Resource:

<u>Statistics Through Application</u> – Second Edition – W.H. Freeman and Company (Starnes, Yates and Moore)

Other Course Supplemental Resources:

<u>Study Island</u> (use student Active Directory - see "AP Statistics" for section topics)

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| | Week | Major Concepts / Topics | Possible Resources |
|-----------------|------------------|---|---|
| | | | POSSIBLE RESOURCES |
| | 1 | Chapter 1 – Statistics: the Art and Science of Data | |
| | 8/10 - 8/12 | Section 1.1 – Where Do Data Come From | Section 1.1 – <u>Perdisco.tv</u> |
| | | Section 1.2 – <u>Drawing Conclusions From Data</u> | Section 1.2 – <u>Perdisco.tv</u> |
| | | Chapter 2 – Describing Distributions of Data | |
| | 2 | Section 2.1 – <u>Displaying Distributions with Graphs</u> | Section 2.1– Perdisco.tv |
| | 2 | | Khan Academy – |
| | 8/15 – 8/19 | | Bar Graphs |
| | | | <u>Line Graphs</u> Pie Graphs |
| | | | Stem-And-Leaf Plots (stemplots) |
| | | - Costing 2.1 Displaying Distributions with Costs | Stem-And-Lear Plots (stemplots) |
| | | Section 2.1 – <u>Displaying Distributions with Graphs</u> Accessory | |
| | | Assessment Section 2.2 Describing Distributions with Numbers | Section 2.2 – Khan Academy |
| | | Section 2.2 – <u>Describing Distributions with Numbers</u> | Khan Academy – |
| | | | Box and Whisker Plots (boxplots) |
| | 3 | | Reading Box and Whisker Plots |
| | 8/22 – 8/26 | | Mean, Median, and Mode |
| Quarter 1 | | | Range and Midrange |
| Aug 10 – Oct 14 | | | Statistics: The Average |
| i ' | | | Statistics: Sample Mean vs Population Mean |
| | | | Statistics: Standard Deviation |
| | | Section 2.2 – <u>Describing Distributions with Numbers</u> | |
| | 4 8/29 – 9/2 | Section 2.3 – <u>Use and Misuse of Statistics</u> | Section 2.3 – <u>YouTube</u> |
| | | Review | Khan Academy – |
| | | Assessment | Reading Pictographs |
| | | | Misleading Line Graphs |
| | 5 | Chapter 3 – Modeling Distributions of Data | |
| | 9/6 – 9/9 | 3.1 – <u>Measuring location in a Distribution</u> | Section 3.1 – <u>Khan Academy</u> |
| | 6 9/12 – 9/16 | 3.1 – <u>Measuring location in a Distribution</u> | |
| | | • 3.2 – <u>Normal Distributions</u> | Section 3.2 – <u>Khan Academy</u> |
| | | | Khan Academy – |
| | | | Introduction to the Normal Distribution |
| | | | Normal Distribution Excel Exercise |
| | | | Normal Distribution Problems: Qualitative sense |
| | | | of normal distributions |
| | | | Normal Distribution Problems: Empirical Rule |
| | | | Exercise: Standard Normal Distribution and the |

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| | 1 | | 1 = |
|--|---------------------|--------------------------------------|---|
| | | | Empirical Rule |
| | | | More Empirical Rule and Z-score practice |
| | 7 | • 3.2 – <u>Normal Distributions</u> | |
| | 9/19 – 9/23 | Assessments | |
| | | Chapter 4 – Describing Relationships | |
| | 8 | 4.1 Scatterplots and Correlation | Section 4.1 – Khan Academy |
| | 9/26 – 9/30 | | Khan Academy – |
| | | | Correlation and Causality |
| | 9 10/3 – 10/7 | Assessment | |
| | | 4.2 Regression and Prediction | Section 4.2 – Khan Academy |
| | | | Khan Academy – |
| | | | Regression Line Example |
| | | | Second Regression Example |
| | | | Calculating R-Squared |
| | | | R-Squared or Coefficient of Determination |
| | 10 10/10 – 10/14 | 4.2 Regression and Prediction | |
| | | Review | |
| | | | |
| | | Assessment | |

| | Week | Major Concepts / Topics | Possible Resources |
|------------------------------|--------------------|---|-----------------------------------|
| | | Chapter 5 – Sampling and Surveys | Khan Academy – |
| | 1 | | Margin of Error 1 |
| | 10/18 – 10/21 | | Margin of Error 2 |
| | | • Section 5.1 – <u>Samples, Good and Bad</u> | Section 5.1 – Khan Academy |
| | 2 | Section 5.2 – What Do Samples Tell Us? | Section 5.2 – <u>Khan Academy</u> |
| | 10/24 – 10/28 | • Section 5.3 – <u>Sample Surveys in the Real World</u> | Section 5.3 – <u>Khan Academy</u> |
| | 3 | Section 5.3 – <u>Sample Surveys in the Real World</u> | |
| | 3 10/31 – 11/4 | • Review | |
| | 10/31 – 11/4 | • Assessment | |
| | 4 | Chapter 6 – Designing Experiments | |
| Ouartor 2 | 11/7 – 11/10 | Section 6.1 – <u>Experiments, Good and Bad</u> | Section 6.1 – <u>YouTube</u> |
| Quarter 2 Oct 18 – Dec 21 | 5 | Section 6.2 – <u>Experiments in the Real World</u> | Section 6.2 – <u>YouTube</u> |
| Oct 18 – Dec 21 | 11/14 – 11/18 | • Section 6.3 – <u>Data Ethics</u> | Section 6.3 – <u>YouTube</u> |
| | 6 | • Review | |
| | 11/21 – 11/22 | • Assessment | |
| | 7 | Semester Review | |
| | 11/28 – 12/2 | | |
| | 8 | Semester Review | |
| | 12/5 – 12/9 | | |
| | 9 | District Exams | |
| | 9 12/12 – 12/16 | | |
| | 12/12 - 12/10 | | |
| | 10 | District Exams | |
| | 12/19 – 12/21 | | |

| | Week | Major Concepts / Topics | Possible Resources |
|----------------|------------------|---|------------------------------------|
| | 1 | Chapter 7 – Probability: What are the Chances? | |
| | 1/5 – 1/6 | Section 7.1 – <u>Randomness, Probability, and Simulations</u> | Section 7.1 – <u>Khan Academy</u> |
| | 2 | Section 7.2 – <u>Probability Rules</u> | Section 7.2 – <u>Khan Academy</u> |
| | 1/9 – 1/13 | | |
| | 3 | Assessment | |
| | 1/17 – 1/20 | Section 7.3 – <u>Conditional Probability and Independence</u> | Section 7.3 – <u>Khan Academy</u> |
| | 1 | Section 7.3 – <u>Conditional Probability and Independence</u> | |
| | 1/23 – 1/27 | Review | |
| | 1/23 - 1/27 | Assessment | |
| | 5 | Chapter 8 – Probability Models | |
| Quarter 3 | 1/30 – 2/3 | Section 8.1 - <u>Probability Distributions</u> | Section 8.1 – <u>Khan Academy</u> |
| Jan 5 – Mar 10 | 6 | Section 8.2 – <u>Counting and Probability</u> | Section 8.2 – <u>Khan Academy</u> |
| | 2/6 – 2/10 | | |
| | 7 2/13 – 2/16 | Section 8.3 – <u>Binomial Distributions</u> | Section 8.3 – <u>Khan Academy</u> |
| | | Review | |
| | | Assessment | |
| | 8 | Chapter 9/10 (Confidence Intervals) | |
| | 2/21 – 2/24 | Section 9.1 – What is a Confidence Interval? | Section 9.1 – <u>Khan Academy</u> |
| | 9 | Section 9.1 – What is a Confidence Interval? | |
| | 2/27 – 3/3 | Section 10.2 – <u>Inference about a Population Mean</u> | Section 10.2 – <u>Khan Academy</u> |
| | 10 3/6 – 3/10 | Section 10.2 – <u>Inference about a Population Mean</u> | |
| | | Review | |
| | 3/0 3/10 | Assessment | |

| | Week | Major Concepts / Topics | Possible Resources |
|-----------------|-------------|---|------------------------------------|
| | 1 | Chapter 9/10 (Significance Test) | |
| | 3/20 – 3/24 | Section 9.2 – What is a Significance Test? | Section 9.2 – Khan Academy |
| | 2 | Section 9.2 – What is a significance Test? | |
| | 3/27 – 3/31 | Section 10.2 – <u>Inference about a Population Mean</u> | Section 10.2 – <u>Khan Academy</u> |
| | 3 | Section 10.2 – <u>Inference about a Population Mean</u> | |
| | 4/3 – 4/7 | Section 9.3 – <u>Use and Abuse of Statistical Inference</u> | Section 9.3 – <u>JB Statistics</u> |
| | 4 | Section 9.3 – <u>Use and Abuse of Statistical Inference</u> | |
| | 4/10 – 4/13 | Review | |
| | | Assessment | |
| Quarter 4 | 5 | Chapter 10 Inference in Practice | |
| Mar 21 – May 24 | 4/17 – 4/21 | Section 10.1 – <u>Chi-Square Test: Goodness of Fit and Two-Way Tables</u> | Section 10.1 – <u>Khan Academy</u> |
| | 6 | Section 10.1 – <u>Chi-Square Test: Goodness of Fit and Two-Way Tables</u> | |
| | 4/24 – 4/28 | Review | |
| | | Assessments | |
| | 7 | Course Standards Review | |
| | 5/1 – 5/5 | | |
| | 8 | Course Standards Review | |
| | 5/8 – 5/12 | | |
| | 9 | Final Exams | |
| | 5/15 – 5/19 | | |
| | 10 | Final Exams | |
| | 5/22 – 5/24 | | |