## 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 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:**

**Statistics Through Applications** 

**Other Course Supplemental Resources:** 

Khan Academy Core - <u>Statistics and Probability</u>

- AP Statistics

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	Week	Major Concepts / Topics	Possible Resources
		Section 1.1 – Where Do Data Come From	Identifying individuals, variables and
	1	Section 1.2 – Drawing Conclusions From Data	categorical variables in a data set - Khan
	8/16 – 8/20		Academy
	,		Unit: Analyzing categorical data - <u>Khan</u>
			Academy
		Assessment	Unit: Displaying quantitative data with graphs -
	_	Section 2.1 – Displaying Distributions with Graphs	Khan Academy
	2		Bar graphs - <u>Khan Academy</u>
	8/23 – 8/27		Line graphs - Khan Academy
			Pie graphs - Khan Academy
			Stem-and-leaf plots - Khan Academy
	3 8/30 – 9/3	Section 2.2 – Describing Distributions with Numbers	Unit: Measuring center in quantitative data -
		Section 2.3 – Use and Misuse of Statistics	Khan Academy
Quarter 1			Constructing a box plot - Khan Academy
Aug 16 – Oct 15			Reading a box plot - Khan Academy
J			Mean, median, mode - Khan Academy
			Range and mid-range - Khan Academy
			Inferring population mean from sample mean - Khan Academy
			Sample standard deviation and bias - Khan Academy
			Reading pictographs - Khan Academy
			Misleading line graphs - Khan Academy
		Labor Day Holiday – 9/6	Misiculing line graphs Khall Academy
		Review	Unit: Modeling data distributions - <u>Khan</u>
	4 9/6 – 9/10		Academy
		Assessment     Assessment     Assessment     Assessment	Introduction to normal distribution - Khan
		3.1 – Measuring location in a Distribution	
		Interior also and 0/44	Academy  Normal distribution - Khan Academy
	5	• Interims Issued – 9/14	Normal distribution - Khan Academy
	9/13 – 9/17	3.2 – Normal Distributions	Normal distribution excel exercise - Khan
	-		Academy

			Qualitative sense of normal distributions - <u>Khan Academy</u> Empirical rule - <u>Khan Academy</u>
	6 9/20 – 9/24	<ul><li>Review</li><li>Assessment</li></ul>	
	7 9/27 – 10/1	4.1 Scatterplots and Correlation	Unit: Exploring bivariate numerical data - Khan Academy Constructing a scatter plot - Khan Academy Calculating correlation coefficient r - Khan Academy Correlation and causality - Khan Academy
	8 10/4 – 10/8	• 4.2 Regression and Prediction	Introduction to residuals and least squares regression - Khan Academy Regression line example - Khan Academy Second regression line example - Khan Academy Calculating r-squared - Khan Academy R-squared or coefficient of determination - Khan Academy
	9 10/11 – 10/15	<ul> <li>PSAT/NMSQT – 10/13</li> <li>Review</li> <li>Assessment</li> </ul>	

	Week	Major Concepts / Topics	Possible Resources
Quarter 2 Oct 18 – Dec 21	1 10/18 – 10/22	<ul> <li>Teacher Planning Day – 10/18</li> <li>Section 5.1 – Samples, Good and Bad</li> </ul>	Unit: Study design - Khan Academy  Margin of error 1 - Khan Academy  Margin of error 2 - Khan Academy  Reasonable samples - Khan Academy
	2 10/25 – 10/29	<ul> <li>Report Cards – 10/26</li> <li>Section 5.2 – What Do Samples Tell Us?</li> </ul>	Unit: Sampling distributions - <u>Khan</u> <u>Academy</u>
	3 11/1 – 11/5	<ul> <li>Section 5.3 – Sample Surveys in the Real World</li> <li>Review</li> </ul>	
	4 11/8 – 11/12	<ul><li>Veterans Day 11/11</li><li>Assessment</li></ul>	
	5 11/15 – 11/19	<ul> <li>Interims Issued – 11/16</li> <li>Section 6.1 – Experiments, Good and Bad</li> </ul>	Introduction to experiment design - Khan Academy Matched pairs experiment design - Khan Academy
	6	• Thanksgiving Holiday 11/24 – 11/26	
	11/22 – 11/26 7 11/29 – 12/3	<ul> <li>Section 6.2 – Experiments in the Real World</li> <li>Section 6.3 – Data Ethics</li> </ul>	
	8 12/6 – 12/10	<ul><li>Review</li><li>Assessment</li></ul>	
	9 12/13 – 12/17	Standards Review	
	10 12/20 – 12/24	<ul> <li>Second Quarter/First Semester Ends – 12/21</li> <li>Winter Break – 12/22 –1/4</li> <li>Midterm</li> <li>Standards Review</li> </ul>	

	Week	Major Concepts / Topics	Possible Resources
	1 1/5 – 1/7	<ul> <li>Teacher Planning Day – 1/5</li> <li>Section 7.1 – Randomness, Probability, and Simulations</li> </ul>	Unit: probability - <u>Khan Academy</u> Randomness, probability and simulation - <u>Khan Academy</u>
	2 1/10 – 1/14	Section 7.2 – Probability Rules	Basic set operations - Khan Academy Addition rule - Khan Academy Multiplication rule for independent events - Khan Academy Multiplication rule for dependent events - Khan Academy
	3 1/17 – 1/21	<ul> <li>Martin Luther King Jr. Holiday – 1/17</li> <li>Report Cards – 1/19</li> <li>Section 7.3 – Conditional Probability and Independence</li> </ul>	Conditional probability and independence - <u>Khan Academy</u>
Quarter 3	4 1/24 – 1/28	<ul><li>Review</li><li>Assessment</li></ul>	
Jan 6 – Mar 10	5 1/31 – 2/4	Section 8.1 - Probability Distributions	Unit: Discrete random variables - <u>Khan</u> <u>Academy</u> Unit: Modeling data distributions - <u>Khan Academy</u>
	6 2/7 – 2/11	<ul> <li>Teacher Inservice – 2/7</li> <li>Interims Issued – 2/8</li> <li>Section 8.2 – Counting and Probability</li> </ul>	Unit: Counting, permutations and combinations - Khan Academy Probability with counting outcomes - Khan Academy
	7 2/14 – 2/18	Section 8.3 – Binomial Distributions	Unit: Random variables - <u>Khan</u> <u>Academy</u> Binomial random variables - <u>Khan</u> <u>Academy</u>
	8 2/21 – 2/25	<ul> <li>Presidents Day Holiday – 2/21</li> <li>Review</li> </ul>	
	9 2/28 – 3/4	<ul> <li>Assessment</li> <li>Section 9.1 – What is a Confidence Interval?</li> </ul>	Unit: Confidence intervals - <u>Khan</u> <u>Academy</u>

		Confidence intervals and margin of
		error - <u>Khan Academy</u>
10	Teacher Planning Day – 3/11	Tests about a population mean - <u>Khan</u>
3/7 – 3/11	Section 10.2 – Inference about a Population Mean	<u>Academy</u>

	Week	Major Concepts / Topics	Possible Resources
	1 3/14 – 3/18	SPRING BREAK – NO SCHOOL	
	2 3/21 – 3/25	Review	
	3 3/28 – 4/1	<ul><li>Report Cards – 3/29</li><li>Assessment</li></ul>	
	4 4/4 – 4/8	Section 9.2 – What is a Significance Test?	Unit: Significance tests - <u>Khan</u> <u>Academy</u>
	5 4/11 – 4/15	<ul> <li>Holiday – 4/15</li> <li>Section 10.2 – Inference Using Significance Test</li> </ul>	
Quarter 4	6 4/18 – 4/22	<ul> <li>Holiday – 4/18</li> <li>Section 9.3 – Use and Abuse of Statistics</li> </ul>	
Mar 14 – June 2	7 4/25 – 4/29	<ul> <li>Interims Issued – 4/26</li> <li>Section 10.1 – Chi-Square</li> </ul>	Unit: Inference for categorical data (chi square tests) - <u>Khan</u> <u>Academy</u>
	8 5/2 – 5/6	Review	
	9 5/9 – 5/13	<ul><li>Assessment</li><li>Standards Review</li></ul>	
	10 5/16 – 5/20	Standards Review	
	11 5/23 – 5/27	Standards Review	
	12 5/30 – 6/2	<ul><li>Memorial Day Holiday – 5/30</li><li>Standards Review</li></ul>	