

**Knox County Prioritized Mathematics Curriculum**  
**AP Statistics**  
**“The Practice of Statistics” 3<sup>rd</sup> Edition aligned with College Board Indicators**  
**AP Questions are available from the collegeboard website <http://apcentral.collegeboard.com>**

<b>College Board/ Knox County Indicator Reference #</b>	<b>Text Section</b>	<b>Days (Time)</b>	<b>Assignment/Resources AP Questions</b>
<b><i>1.0 Exploring Data</i></b>	<b><i>Chapters 1-4</i></b>	<b>22</b>	
1.1 a, b, c, d	Introduction pp. 4-10 <i>Displaying data-charts</i>		
	1.1 pp. 11-30 <i>dotplots/stemplots/histograms</i>		<b>AP:</b> 2001 #6a; 2002B #5; 2003 #1a,b
1.2 a, b, c, d, e	1.2 pp. 37-46 <i>mean/5 number summary</i>		
1.3 a, b, c, d	1.2 pp. 49-61 <i>spread-Standard Deviation comparative distributions</i>		<b>AP:</b> 2000 #3; 2001 #1; 2004B #5a; 2004 #1
3.3 a, b, c	2.1 pp. 76-91 <i>density curves-normal dist. 68-95-99.7 Rule</i>		
	2.2 p. 93-109 <i>standardizing data/standard normal curve</i>		<b>AP:</b> 1998 #6a; 1999 #4a,c; 2002 #3a; 2004B #3a,b
1.4 a, b, c	3.1 pp. 120-134 <i>scatterplots-construction of</i>		
	3.2 pp. 140-147 <i>correlation</i>		<b>AP:</b> 1998 #2; 2000 #1; 2002B #1
	3.3 pp. 149-156 <i>LSRL</i>		
	pp. 157-165 <i>the role of <math>r^2</math></i>		

	pp. 167-176 <i>residuals</i>		<b>AP:</b> 1998 #4 (residual plots); 1999 #6c; 2002 #4; 2003B #1(influential points)
1.4 e	4.1 pp. 194-211 <i>transforming relationships</i> <i>log/ exponential models</i>		
	pp. 214-222 <i>power models</i>		
1.4 d	4.2 pp. 225-237 <i>extrapolation/lurking variables</i>		
1.5 a, b, c, d	4.3 PP. 241-253 <i>two way tables/conditional distributions</i>		<b>AP:</b> 1997 #6; 2004B #1
<b>2.0 Sampling and Experimentation</b>	<b>Chapter 5</b>	<b>7</b>	
2.1 a, b, c, d 2.2 a, b, c, d	5.1 pp. 268-285 <i>observation v. experiment</i> <i>sampling design: population, census, voluntary response, convenience, bias, SRS, PRB sampling and stratifying</i>		
2.3 a, b, c, d, e	5.2 pp. 290-298 <i>designing experiments:</i> <i>Units, subjects, treatments, factors, levels, placebo, controls, randomization, replication, significance</i>		<b>AP:</b> 2003B #3a

	pp. 299-306 <i>Blinding, matched pairs, block designs</i>		<b>AP:</b> 1998 #3; 1999 #3; 2000 #5; 2001 #4 (blocking); 2002 #2 (match pairs design); 2002B #3; 2003 #4 (randomization); 2004 #2 (blocking); 2004B #2
3.1 e, 2.4	5.3 pp. 309-316 <i>Simulating experiments: random digit assignment</i>		<b>AP:</b> 2003 #4a,b,d
<b>3.0 Anticipating Patterns</b>	<b>Chapters 6-9</b>	<b>22</b>	
3.1 a 3.1 c	6.1 pp. 330-333 <i>The idea of probability</i> 6.2 pp. 335-348 <i>sample space, event, prb model, Multiplication, Addition, and Complement Rules</i>		
3.1 c	6.3 pp. 359-379 <i>Conditional Probability-General Rules</i>		<b>AP:</b> 1997 #3; 1999 #5; 2003B #2; 2004 #4a
3.1 d	7.1 pp. 390-403 <i>discrete/continuous random variables, normal distributions as PRB distributions</i>		
3.1 b, f	7.2 pp. 407-426 <i>means and variances of random variables, Law of Large Numbers</i>		<b>AP:</b> 1999 #5b; 2000 #6b,c; 2001 #2; 2002 #3; 2002B #2; 2003B #5; 2003 #6a; 2004B #3c,d (normal curve); 2004 #4b,c
3.1 d	8.1 pp.439- 461 <i>binomial distributions</i>		<b>AP:</b> 1998 #6b,c,d,e; 1999 #4b; 2001 #3; 2004 #3 (conditions for binomial setting)

3.1d	8.2 pp.464-475 <i>geometric distributions</i>		
2.2 a, b, c	9.1 pp. 488- 502 <i>sampling distributions, variability, parameters, bias</i>		
3.4 a	9.2 pp. 504 – 512 <i>sample proportions</i>		
3.4 b, c	9.3 pp.514 – 525 <i>sample means, central limit theorem</i>		<b>AP:</b> 1998 #1 (CLT); 2004 #3c,d (CLT)
<b>4.0 Statistical Inference</b>	<b>Chapters 10 – 14</b>	<b>30</b>	
4.1 c, f	10.1 pp. 537 – 556 <i>estimating with confidence, confidence intervals for a population mean, margin of error</i>		
4.2 a, d	10.2 pp. 559 – 582 <i>tests of significance, alternative and null hypotheses, p-value, statistical significance, one-sample z statistic</i>		
4.2a	10.3 pp. 586 – 592 <i>statistical significance</i>		<b>AP:</b> 2002 #1; 2002 #6a,b; 2003B #6; 2003 #6b,c,d
4.2a	10.4 pp. 593 – 605 <i>inference as decision, type I and type II errors, power</i>		

3.4 g, 4.1 f, 4.2 a, d	11.1 pp. 616 – 642 <i>inference for the mean of a population, one-sample t-statistic, t confidence intervals and tests of significance, matched pairs t procedures, robustness</i>	<b>AP:</b> 2000 #2 (t-test); 2003 #1c; 2004 #6 (confidence interval only); 2004B #5b,c
4.1 g, 4.2 e	11.2 pp. 648 – 668 <i>comparing two means, two-sample problems, difference between means</i>	<b>AP:</b> 1999 #6a,b; 2000 #4; 2001 #5 (paired t-test or two sample z test); 2002B #6a; 2003B #4c; 2004B #4 (confidence interval only)
4.1 d, 4.2 b	12.1 pp. 685 – 697 <i>inference for a population proportion, confidence intervals for p</i>	<b>AP:</b> 1998 #5; 2002B #4; 2003 32 (Type I and Type II Error)
4.1 e, 4.2 c	12.2 pp. 702 – 713 <i>comparing two proportions, confidence intervals for differences of proportions, significance tests for differences of proportions</i>	<b>AP:</b> 2000 #6; 2002 #5, #6c,d; 2003B #3b; 2004B #6
3.4 h, 4.2 f	13.1 pp. 728 – 743 <i>Chi square test for goodness of fit</i>	
4.2 f	13.2 pp. 744 – 766 <i>inference for two-way tables, chi-square statistic, chi-square test for homogeneity of populations</i>	<b>AP:</b> 1999 #2 (independence); 2002 #6; 2002B #6b (homogeneity); 2003 #5 (independence); 2003B #5c (independence)
4.1 h, 4.2 g	14.1 pp. 780 – 794 <i>regression inference, confidence intervals for the regression slope</i>	<b>AP:</b> 2001 #6b