

## 6<sup>th</sup> Grade Math Unit 7 Information

### Statistics

CRCT Domain & Weight: Probability & Statistics 17%

[FLIPBOOK for Unit 7](#)

[Content Descriptors/Enduring Understandings: Unit 7](#)

[Prerequisites: Unit 7](#)

[Overview of Unit 7](#)

[Vocabulary](#)

Unit Length: Approximately 15 days

[Checklist for Unit 7](#)

[Study Guide for Unit 7](#)

[Study Guide KEY for Unit 7](#)

**Calculators are Allowed in This Unit.**

Click on the links below for resources by Concept:

Concept ONE: [Statistical Questions and Measures of Center](#)

Concept TWO: [Measures of Variability and Spread](#)

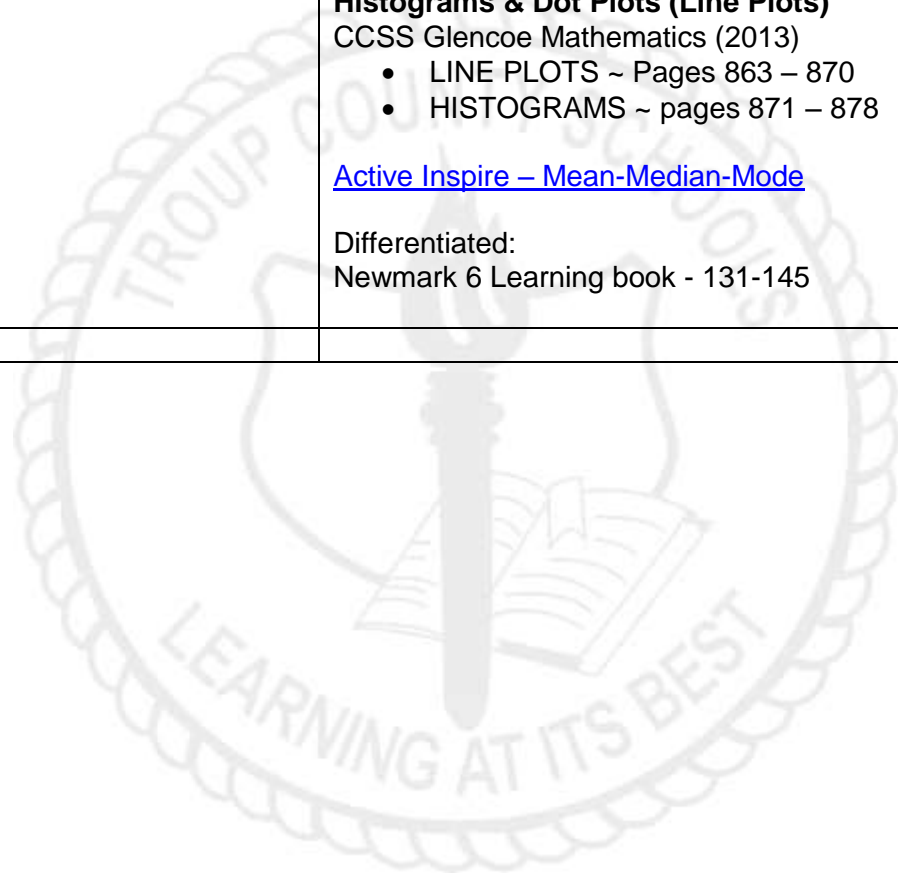
# TCSS 6<sup>th</sup> Math Unit 7 ~Statistics

Concept ONE: Statistical Questions and Measures of Center			
Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p><b>MGSE6.SP.1</b> Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. <i>For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.</i></p> <p><b>E.Q.</b> How can I recognize when a question is statistical and when it is not?</p> <p><b>MGSE6.SP.2</b> Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.</p> <p><b>E.Q.</b> How can I describe the center of a set of data?</p> <p><b>E.Q.</b> What conclusions can be drawn from data?</p>	<ul style="list-style-type: none"> <li>• Statistical Questions</li> <li>• Measures of Center</li> <li>• Distribution</li> <li>• Dot plot</li> <li>• Frequency</li> <li>• Maximum Value</li> <li>• Minimum Value</li> <li>• Mean</li> <li>• Median</li> <li>• Mode</li> <li>• Outlier</li> <li>• Range</li> </ul>	<p><b>Unit Activating Lesson:</b> <a href="#">Unit Activator</a> <i>*engaging*</i></p> <ul style="list-style-type: none"> <li>• Includes vocabulary, EQ, standards posters</li> </ul> <p><b>Eureka</b> <a href="#">License</a></p> <ul style="list-style-type: none"> <li>• <a href="#">DO Lessons 1 &amp; 2:</a> <ul style="list-style-type: none"> <li>○ Posing Statistical Questions</li> <li>○ Displaying Data Distribution</li> </ul> </li> <li>• <a href="#">OPTIONAL Lessons 3 , 4 , &amp; 5:</a> <ul style="list-style-type: none"> <li>○ Creating Dot Plots</li> <li>○ Creating Histograms</li> <li>○ Describing Distribution in Histograms</li> </ul> </li> <li>• <a href="#">DO Lessons 8 &amp; 12</a> <ul style="list-style-type: none"> <li>○ Variability in Distributions</li> <li>○ Center Using Median</li> </ul> </li> </ul> <p><b>Statistical Questions</b> CCGPS Frameworks <i>What is a Statistical Question?</i></p> <p>CCSS Glencoe Mathematics (2013)</p> <ul style="list-style-type: none"> <li>• <a href="#">STATISTICAL QUESTION?</a> Page 805 &amp; top of 807</li> </ul> <p>What is a Statistical Question? <a href="https://www.youtube.com/watch?v=6fbkkj5ZZ4U">https://www.youtube.com/watch?v=6fbkkj5ZZ4U</a></p> <p><b>MEAN, MEDIAN, MODE</b> CCSS Glencoe Mathematics (2013)</p> <ul style="list-style-type: none"> <li>• MEAN ~ Pages 809 – 816</li> <li>• MEDIAN &amp; MODE ~ Pages 817 – 824</li> </ul> <p><a href="#">Station Activities – Measures of Central Tendency</a></p> <ul style="list-style-type: none"> <li>• Station 1 – You need to make a few index cards</li> <li>• Station 2</li> <li>• Station 3 - You need to make a few index cards</li> <li>• Station 4 – Need pair of dice</li> </ul> <p><i>Continued on next page...</i></p>	<p><b>CC.6.SP.1</b></p> <p><b>CC.6.SP.3&amp;4&amp;5</b></p>

# TCSS 6<sup>th</sup> Math Unit 7 ~Statistics

## Concept ONE: Statistical Questions and Measures of Center

Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p><b>MGSE6.SP.4</b> Display numerical data in plots on a number line, including dot plots (line plots), histograms, and <del>box</del> plots.</p>		<p><i>...continued from previous page</i></p> <ul style="list-style-type: none"> <li>Great Group/Pair/Individual Task - <a href="#">Buying Games</a></li> </ul> <p><b>Histograms &amp; Dot Plots (Line Plots)</b>            CCSS Glencoe Mathematics (2013)</p> <ul style="list-style-type: none"> <li>LINE PLOTS ~ Pages 863 – 870</li> <li>HISTOGRAMS ~ pages 871 – 878</li> </ul> <p><a href="#">Active Inspire – Mean-Median-Mode</a></p> <p>Differentiated:            Newmark 6 Learning book - 131-145</p>	



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<b>Concept TWO: Measures of Variability and Spread</b>			
<b>Standard(s) &amp; Essential Questions</b>	<b>Vocabulary</b>	<b>Resources</b>	<b>Assessment</b>
<p><b>MGSE6.SP.2</b> Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.</p> <p><b>E.Q.</b> How can I describe the spread of a set of data?</p> <p><b>MGSE6.SP.3</b> Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.</p> <p><b>E. Q.</b> What is the difference in a measure of center and a measure of variation?</p> <p><b>MGSE6.SP.4</b> Display numerical data in plots on a number line, including dot plots (line plots), histograms, and box plots.</p> <p><b>E.Q.</b> What kinds of graphs will best represent a given set of data?</p>	<ul style="list-style-type: none"> <li>• Dot plot</li> <li>• Frequency</li> <li>• Box plot</li> <li>• Inter-Quartile Range</li> <li>• Maximum Value</li> <li>• Minimum Value</li> <li>• Measures of Spread</li> <li>• Variability</li> <li>• Mean Absolute Deviation (going away in 2016 ☺ )</li> </ul>	<p><a href="#">Do Eureka</a> <span style="float: right;"><a href="#">License</a></span></p> <ul style="list-style-type: none"> <li>• Lesson 14: Summarizing Using Box Plot</li> <li>• Lesson 15: More Box Plots</li> <li>• Lesson 16: Understanding Box Plots</li> </ul> <p><b>Variation (Box Plots)</b></p> <p>CCSS Glencoe Mathematics (2013)</p> <ul style="list-style-type: none"> <li>• MEASURES OF VARIATION ~ Pages 829 - 836</li> </ul> <p><a href="#">Box and Whisker Layer Book</a></p> <p><a href="#">Box and Whisker Powerpoint</a></p> <p><b>Variation (Box Plots) &amp; Data Distribution</b></p> <p>Guess the Ages</p> <ul style="list-style-type: none"> <li>• <a href="#">Power Point</a></li> <li>• <a href="#">Table for Recording</a></li> <li>• <a href="#">Blank Box &amp; Whisker Graph</a></li> <li>• <a href="#">Questions to ask</a></li> </ul> <p><a href="#">ActivInspire Box and Whisker Plot CheckPoint</a></p> <p>Station Activities – <a href="#">Measures of Variation</a></p> <ul style="list-style-type: none"> <li>• Station 1 – includes decimals</li> <li>• Station 2 – Need snack size m&amp;ms</li> <li>• Station 3 – calculator(s) for sure</li> <li>• Station 4 – Need a pair of dice</li> </ul>	<p><b>CC.6.SP.3&amp;4&amp;5</b></p>

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## Concept TWO: Measures of Variability and Spread

Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p><b>MGSE6.SP.5</b> Summarize numerical data sets in relation to their context, such as by:</p> <p>a. Reporting the number of observations.</p> <p>b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.</p> <p>c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range).</p> <p>d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered.</p> <p><b>E. Q.</b> Keeping overall patterns and deviations in mind, how do I choose the best measure?</p> <p><b>E. Q.</b> What conclusions can be drawn from data?</p>		<p>CCSS Glencoe Mathematics (2013)</p> <ul style="list-style-type: none"> <li>• Box Plots ~ Pages 879 – 886, and 890</li> <li>• Shape of Data Distribution~Pages 891-898 Review ~ Pages 854,and 856 – 858</li> <li>• More Review ~ Pages 920, and 922-924</li> </ul> <p>Differentiated Box &amp; Whisker Plots</p> <ul style="list-style-type: none"> <li>• <a href="#">Easy   Key</a></li> <li>• <a href="#">Medium   Key</a></li> </ul> <p>Newmark 6 Learning Book pg 146-150</p>	