

7th Grade Math Curriculum Bundle # 8

Title	Suggested Dates
Coordinate Plane, Data Representations, Mean, Median, Mode and Range	February 1 – February 19 (13 days)



Big Idea/Enduring Understanding	Guiding Questions
Ordered pairs can be used to represent the relationship between input data and output data or location on a coordinate plane.	<ol style="list-style-type: none"> 1. How is a coordinate plane used? 2. How can you tell which quadrant an ordered pair is in by looking at the signs of its x- and y-coordinates?
Central tendencies are different ways of expressing the “middle” of a data set.	<ol style="list-style-type: none"> 1. How is it possible for two sets of data to consist of different numbers but have the same mean, the same mode, and the same median? 2. In what kinds of situations can you use the mode, but not the mean or the median, to identify what is typical? 3. How can the mean be interpreted as a balance point in a distribution? 4. What is the effect of an outlier on a measure of central tendency?
Data can be represented in many forms, some of which can be misleading. Consumers must critically view the graph or chart in order to evaluate its validity.	<ol style="list-style-type: none"> 1. How can you manipulate a graph to skew the appearance of the data? 2. How does displaying data in tables or graphs help you identify patterns or properties of a distribution?

The resources included here provide teaching examples and/or meaningful learning experiences to address the District Curriculum. In order to address the TEKS to the proper depth and complexity, teachers are encouraged to use resources to the degree that they are congruent with the TEKS and research-based best practices. Teaching using only the suggested resources does not guarantee student mastery of all standards. Teachers must use professional judgment to select among these and/or other resources to teach the district curriculum.

Knowledge & Skills with Student Expectations	District Specificity/Examples	Suggested Resources (See Note Above)
<p>7.7 Geometry and spatial reasoning. The student uses coordinate geometry to describe location on a plane.</p> <p>7.7A locate and name points on a coordinate plane using ordered pairs of integers</p>	<ul style="list-style-type: none"> • Identify 4 quadrants • Identify x & y axis, origin • Graph point given coordinates • Name and locate points in overlapping geometric figures 	<p>PH Textbook Chapter 10.1</p> <p>Understanding Math Understanding Graphing: Topic 3</p> <p>AIRR 7th grade Activity #228-237</p> <p>Kamico 7th Grade Book 2 “Battleship” pg. 63</p>

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<p>7.11 Probability and statistics. The student understands that the way a set of data is displayed influences its interpretation.</p> <p>7.11A select and use an appropriate representation for presenting and displaying relationships among collected data, including line plot, line graph, bar graph, stem and leaf plot, circle graph, and Venn diagrams, and justify the selection</p>	<ul style="list-style-type: none"> • use data in tables to create visual displays • create more than one display of the data • select best display for a given set of data • recognize appropriate/inappropriate representations for data 		<p>PH Textbook 11.1b (Venn Lab) Chapter 11.1</p> <p>Laying the Foundation “Stem and Leaf Plots” p. 324</p> <p>AIRR 7th grade Activity # 314-328</p> <p>Kamico 7th Grade Book 2 “Graphing Gala” pg. 149</p> <p>Investigate mean, median, and box and whisker plot for a set of data that is student generated.</p>
<p>7.11 Probability and statistics. The student understands that the way a set of data is displayed influences its interpretation.</p> <p>7.11B make inferences and convincing arguments based on an analysis of given or collected data</p>	<ul style="list-style-type: none"> • use the data to make predictions in percents, fractions, ratios • recognize and analyze data in tables, bar graphs, line graphs, line plot 		<p>PH Textbook Chapter 11.5 & 11.6</p> <p>AIRR 7th Grade Activity #333-339</p> <p>Kamico 7th grade Book 2 “What’s Your Inference” p 163</p>
<p>7.12 Probability and statistics. The student uses measures of central tendency and range to describe a set of data.</p> <p>7.12A describe a set of data using mean, median, mode, and range</p>	<ul style="list-style-type: none"> • describe what each tendency means in the given situation • use data from tables, graphs, problem situations, or models • find missing data point given a measure of central tendency • use hands on models to demonstrate measures of central tendency 		<p>PH Textbook Chapter 1.10</p> <p>BrainPop.com Mean, Median, Mode, & Range</p> <p>Region IV Measures of Central Tendency Lesson</p> <p>Kamico 7th grade Book 2 “Hold a Statistics Olympics” p 171</p> <p>Laying the Foundation “Measures of Central Tendency” pg. 314</p>

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			Interactive Bar Grapher NCTM Interactive Circle Grapher NCTM
<p>7.12 Probability and statistics. The student uses measures of central tendency and range to describe a set of data.</p> <p>7.12B choose among mean, median, mode, or range to describe a set of data and justify the choice for a particular situation.</p>	<ul style="list-style-type: none"> • use a set of data the student selects the “best” measure of central tendency to • describe that data • describe what each tendency means in the given situation 		<p>PH Textbook Chapter 1.10</p> <p>Kamico 7th Grade Book 2 “Your-A-Fly Your Swat” pg. 176</p> <p>AIRR 7th grade Activity # 340-342</p>
<p>7.13 Underlying processes and mathematical tools. The student applies Grade 7 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p> <p>7.13A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics</p> <p>Note: Ongoing</p>	<ul style="list-style-type: none"> • identify necessary, needed and relevant information to solve problems 		<p>Kamico 7th Grade Book 2 “Inquisitive Interviews Activity” pg. 188</p> <p>AIRR 7th grade Activity #343-348</p>