WAKE COUNTY PUBLIC SCHOOL SYSTEM

Middle School Programs
Building Healthy Core Learning
Common Core Math I, Unit 2

Math I UNIT 2 OVERVIEW: One Variable Statistics

Unit Outcomes At the end of this unit, your student should be able to:	**Key Vocabulary** Terms to deepen the student's understanding
✓ Represent data with plots on the real number line using dot plots, histograms and box plots ✓ Choose and explain the scale and the origin on a graph ✓ Use technology to find summary statistics and to graph data. ✓ Choose the best measure of central tendency to represent data ✓ Compare the center and spread of two or more different data sets ✓ Interpret differences in shape, center, and spread in context. ✓ Explain why data has a specific distribution based on context ✓ Explain the effect of outliers on the shape, center, and spread of data distributions. ✓ Use the 1.5IQR rule to determine if there are outliers in a data set.	✓ Categorical Data ✓ Data ✓ Dot Plot ✓ Frequency Distribution ✓ Histogram ✓ Measures of Center ✓ Measures of Spread ✓ Population ✓ Quantitative Data ✓ Variable ✓ Mean ✓ Mean Absolute Deviation ✓ Median ✓ Standard Deviation ✓ Box Plot ✓ Interquartile Range ✓ Modified Box Plot ✓ Outlier
Key Standards Addressed Connections to Common Core/NC Essential Standards	**Where This Unit Fits** Connections to prior and future learning
N-Q.1 Choose and interpret units consistently in formulas N-Q.2 Define appropriate quantities for the purpose of descriptive modeling N-Q.3 Choose a level of accuracy appropriate to the limitations on measurements S-ID.1 Represent data with box plots, histograms, and dot plots S-ID.2 Use appropriate statistics to compare measures of center and spread of two different data sets S-ID.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points	**Coming into this unit, students should have a strong foundation in:** ✓ Finding central tendency (mean, median, mode, and range) ✓ Categorizing independent and dependent variables ✓ Creating basic graphs including box plots and histograms **This unit builds to the following future skills and concepts:** ✓ Creating and interpreting representations of data with 2 variables ✓ Graphing various function ✓ Interpreting all types of graphs and charts

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Additional Resources Materials to support understanding and enrichment	**"Learning Checks"** Questions Parents Can Use to Assess Understanding
✓ Teaching videos made by Wake County teachers ✓ WCPSS YouTube Channel – Math Playlist ✓ Basic Measures of Central Tendency ✓ Finding Mean Absolute Deviation Practice ✓ Constructing a Box Plot ✓ Interpreting Box Plots Practice ✓ Histograms ✓ Interpreting Histograms Practice ✓ The Best Measure of Central Tendency ✓ Finding Statistics on your Calculator ✓ Interquartile Range ✓ Professions that Use Statistics ✓ Measures of Variability	✓ When given a description of a situation, why is it important that you know how to appropriately model data, taking into account units, limitations, and accuracy? ✓ What makes a piece of data unusual compared to the rest of the data set it belongs to? ✓ How do outliers affect shape, center, and spread of data distribution?

*** Please note**, the unit guides are a work in progress. If you have feedback or suggestions on improvement, please feel free to contact wakemiddle@wcpss.net.