MCS Statistical Reasoning Subject Group Overview

Unit Name	Unit 1 - Statistical Modeling	Unit 2 - Statistics as a Problem-Solving Process and the Role of Questioning	Unit 3 - Collecting/Considering Data and Types of Studies (including nontraditional data)	Unit 4 - Analyzing Data and the Role of Distributions	Unit 5 - Interpreting Results to Answer the Statistical Investigative Question	Unit 6 - Culminating Capstone Unit
Time Frame	3 - 4 weeks	3 - 4 weeks	6 - 7 weeks	7 - 8 weeks	5 - 6 weeks	2 - 3 weeks
Standards	SR.MM.1 SR.MP.1-8	SR.DSR.2 SR.MM.1 SR.MP.1-8	SR.DSR.3 SR.MM.1 SR.MP.1-8	SR.DSR.4 SR.MM.1 SR.MP.1-8	SR.DSR.5 SR.MM.1 SR.MP.1-8	ALL STANDARDS SR.MP.1-8
Content Specific Information	- Graphical representations of real-world data and applications. -Abstract and quantitative reasoning. -Mathematical representations of data.	- Formulate investigative questions about a population using samples - Formulate comparative and associative investigative questions for surveys, observational studies and experiments for comparative purposes - Compare one, two, and multivariable groups -Investigate statistical questions to compare association and make predictions	-Apply an appropriate data-collection plan when collecting primary or secondary data for the statistical question of interest. -Distinguish between surveys, observational studies, and experiments. -Design sample surveys, experiments, and observational studies using accepted practices. -Distinguish between random selection and random assignment; identify their impact on conclusions. -Describe potential sources of bias and confounding variables. -Describe and adhere to the ethical use of data. -Identify when data can be generalized to a target population.	-Summarize quantitative and categorical data using tables, graphs, and summary statistics. -Multivariable connections. -Sampling distributions computed to p-values. -Least-square regression line (using technology). -Using simulations to compare two categorical variables.	-Formulate statistical questions. -Outliers, missing values, and erroneous values on the results. -Estimates for population characteristics. -Interpret margin of error associated with population characteristic. -Impacts of multi variables.	
Common Assessments/ Performance Projects	Mid-Unit Quiz Unit 1 Test	Mid-Unit Quiz Unit 2 Test	Mid-Unit Quiz Unit 3 Test	Mid-Unit Quiz Unit 4 Test	Mid-Unit Quiz Unit 5 Test	Final/Culminating Project

	Differentiation For Tiered Learners	Marietta City Schools teachers provide specific differentiation of learning experiences for all students. Details for differentiation for learning experiences are included on the district unit planners.