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 and 6 (DOE Unit 5) - Interpreting Results to Answer the Statistical Investigative Question	Review/Remediation/Final Exams
Time Frame	4-5 weeks	4 weeks	6 - 7 weeks	5-6 weeks	7-8 weeks	2 weeks
Standards	● SR.MM.1.1 ● SR.MM.1.2. ● SR.MM.1.3. ● SR.MM.1.4	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 - Investigate relationships between two quantitative variables - 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. -Understanding locations of a value in a distribution -Sampling distributions to calculate p-values. -Creating sampling distributions of both means and proportions to evaluate claims -Using simulations to compare two variables.	-Formulate statistical questions. -Outliers, missing values, and erroneous values on the results. -Estimates for population characteristics based on sample statistics -Interpret margin of error associated with population characteristic and point estimates - Calculating confidence intervals and significance tests proportions and means, using results to make conclusions -Impacts of multi variables such as confidence level and sampling, and practical issues when sampling.	

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	Common Assessments/ Performance Projects	Mid-Unit Quiz Unit 1 summative assessments	Mid-Unit Quiz Unit 2 summative assessments	Mid-Unit Quiz Unit 3 summative assessments Midterm	Mid-Unit Quizzes Unit 4 summative assessments	Mid-Unit Quizzes Unit 5 summative assessments Unit 6 summative assessments	Final Exam
	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.					