



Marietta City Schools
2024–2025 District Unit Planner

AP Statistics

Unit title	Unit 3: Collecting Data	Unit duration (hours)	12 - 15 hours
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Mastering Content and Skills through INQUIRY (Establishing the purpose of the Unit): *What will students learn?*

GA DoE Standards

Standards

- 3.1 Introducing Statistics: Do the Data We Collected Tell the Truth?
- 3.2 Introduction to Planning a Study
- 3.3 Random Sampling and Data Collection
- 3.4 Potential Problems with Sampling
- 3.5 Introduction to Experimental Design
- 3.6 Selecting a Experimental Design
- 3.7 Inference and Experiments

Concepts/Skills to support mastery of standards

- Differentiate between sample vs. population and observational vs. experimental study
- Identify the different methods of sampling
- Determine an appropriate sampling method to answer a statistical question
- Construct a good experiment

Vocabulary

Experiment	Observational study	Simple Random Sampling	Stratified Sampling	Cluster Sampling
Systematic Sampling	Census	Bias	Confounding Variables	Inference

Essential Questions

- How do we know if the data we collect tells the truth?
- What type of conclusions can be drawn from different types of studies?
- How do we collect unbiased samples?
- How do we design a good experiment?

Assessment Tasks

List of common formative and summative assessments.

Formative Assessment(s):

Common Formative Assessment – Ticket out the Door, Homework, Group Presentations, Quiz

Summative Assessment(s):

Common Summative Assessment – Unit 3 Project

Learning Experiences

Add additional rows below as needed.

Objective or Content	Learning Experiences	Personalized Learning and Differentiation
4.B Interpret statistical calculations and findings to assign meaning or assess a claim.	<u>Does SAT Prep Produce Higher Scores? (Stat Medic)</u> Students will explore the effect of SAT Prep classes on SAT scores to explain the concept of confounding and how it limits the ability to make cause-effect conclusions.	Support the Learning: Students may be provided with vocabulary support as well as guided notes and graphic organizers to aid in synthesizing the more complex ideas from the task.

Content Resources

All notes are provided on schoology.
The Practice of Statistics 5th edition
AP College Board