



AP Statistics UNIT PLANNER



Unit title	Unit 4: Designing Studies	Unit duration	10 Class Blocks
-------------------	----------------------------------	----------------------	------------------------

Essential Questions (OR GUIDING QUESTIONS?)

What is the best way to select a representative sample?
 How can bias affect an observational study?
 What is the difference between an observational study and an experiment?
 What are the advantages and disadvantages of each experimental design?
 When are results from a study significant?

Assessments

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

 Common Summative Assessment – Unit 4 Survey Project

Content Standards

Topic II: Sampling and experimentation: planning and conducting a study

Learning Activities and Experiences

Topic	Resource	Content Covered	Standards Addressed
Sampling	Activities: Rolling Down the River, Does Beyoncé write her own lyrics?	Sampling techniques, bias	
	How much do fans love Justin? What is wrong with this survey?	Sampling techniques, bias	
	Additional Resources: Textbook Section 4.1 <ul style="list-style-type: none"> The Practice of Statistics, 5th Edition – 4.1 Sampling and Surveys 		
Experimentation	Activities: Does SAT prep improve scores?	Experimental Design	
	Does caffeine increase pulse rate?	Experimental Design	

Additional Resources: Textbook Section 4.2 and 4.3

- The Practice of Statistics, 5th Edition – 4.2 Experiments
- The Practice of Statistics, 5th Edition – 4.3 – Using Studies Wisely

Personalized Learning and Differentiation

Teachers differentiate by providing examples (work samples or task-specific clarifications of assessment criteria); structuring support (advance organizers, flexible grouping, peer relationships); establishing flexible deadlines, and adjusting the pace.

- SWD/504- Accommodations provided
- ELL- Five Principle ELL Curriculum Framework and Vocabulary Supports
- Intervention Support- Re-teaching Activities in Small Groups with Progress Monitoring
- Extensions- Enrichment Tasks and Projects

Resources

All notes are provided on schoology.

The Practice of Statistics