Unit 7: Inference for Quantitative Data: Means
& Unit 8/9: Chi-Squared & Linear Regression Inference

Learning Targets and Success Criteria:

LT1: I can calculate a confidence interval for the 1 mean.
  SC: I can use the correct formulas for estimate, critical value and margin of error.
LT2: I can perform a hypothesis test for 1 mean.
  SC: I can write appropriate hypotheses.
    I can check appropriate conditions.
    I can create an appropriate model and calculate a p-value.
    I can write a conclusion based on my analyses.
LT3: I can calculate a confidence interval for the difference between 2 means.
  SC: I can use the correct formulas for estimate, critical value and margin of error.
LT4: I can perform a hypothesis test for the difference between 2 means.
  SC: I can write appropriate hypotheses.
    I can check appropriate conditions.
    I can create an appropriate model and calculate a p-value.
    I can write a conclusion based on my analyses.
LT5: I can calculate a confidence interval for the mean of paired data.
  SC: I can use the correct formulas for estimate, critical value and margin of error.
LT6: I can perform a hypothesis test for the mean of paired data.
  SC: I can write appropriate hypotheses.
    I can check appropriate conditions.
    I can create an appropriate model and calculate a p-value.
    I can write a conclusion based on my analyses.
LT7: I can perform the appropriate hypothesis test for counts for categorical data.
  SC: I can write appropriate hypotheses.
    I can check appropriate conditions.
    I can create an appropriate model and calculate a p-value.
    I can write a conclusion based on my analyses.
LT8: I can perform a hypothesis test for the slope of a least squares regression line.
  SC: I can write appropriate hypotheses.
    I can check appropriate conditions.
    I can create an appropriate model and calculate a p-value.
    I can write a conclusion based on my analyses.

Day 1a
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
    Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #1 & 2 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, **Guided Practice**, **Practice/Differentiation:**

T-distribution notes (slides & chart examples)

Class Examples for 1-sample t-intervals & tests (guided practice)

Summarizers:

Selected Problems from Handout

Homework:
P. 558 #36

Day 1b
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
　　　　　　Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #1 & 2 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

1-sample-t-interval/test practice WS packet

Summarizers:

Selected Problems from Handout

Homework:
FInish packet for HW

Day 1c
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
　　　　　　Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #1 & 2 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Parking Garage Example

P. 558 #'s 15, 32, 35

Summarizers:

Selected Problems from Handout

Homework:
Finish bookwork for HW

Day 2a
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #3 & 4 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

2-sample-t-interval/test examples (guided practice)

Summarizers:

Selected Problems from Handout

Homework:
P. 581 #11,27

Day 2b
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #3 & 4 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Life Satisfaction Example

2-sample-t-interval/test Practice WS Packet

Summarizers:

Selected Problems from Handout

Homework:
Finish Packet

Day 2c

Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
          Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #3 & 4 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

1-sample-t interval/test & 2-sample-t-interval/test (ch. 23 & 24) Quiz Review

Summarizers:

Selected Problems from Handout

Homework:
STUDY FOR QUIZ

Day 2d
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
          Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #3 & 4 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

1-sample-t interval/test & 2-sample-t-interval/test (ch. 23 & 24) Quiz

Summarizers:

Selected Problems from Handout

Homework:
none

Day 3a
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
          Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #5 & 6 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Matched pairs-t interval/test class examples (guided practice)

Summarizers:

Selected Problems from Handout

Homework:
P. 604 # 15, 19

Day 3b
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #5 & 6 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Yogurt example

Matched pairs-t interval/test practice WS packet

Summarizers:

Selected Problems from Handout

Homework:
Finish Packet

Day 3c
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #5 & 6 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Matched pairs-t interval/test Quiz Review

Start Inference Test Reviews

Summarizers:

Selected Problems from Handout

Homework:
Study for Quiz & Work on Test Reviews

Day 3d
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #5 & 6 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Matched pairs-t interval/test Quiz

Keep working on Inference Test Reviews

Summarizers:

Selected Problems from Handout

Homework:
Study for Test & Work on Test Reviews

Day 4
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #5 & 6 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Keep working on Inference Test Reviews

Summarizers:

Selected Problems from Handout

Homework:
Study for Test & Work on Test Reviews

Days 5, 6, 7
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
　　　　　Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #'s 1 - 6 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Inference Test (3 day test)

Day 1: 3 FRQs
Day 2: 3 FRQs
Day 3: 2 FRQs

Summarizers:

Selected Problems from Handout

Homework:
Study for Test & Work on Test Reviews each day

Days 8a
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
　　　　　Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #'s 7 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Chi-squared Goodness of Fit (X^2-GOF) class example

Mythbusters Guided practice

Summarizers:

Selected Problems from Handout

Homework:
None

Days 8b
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #'s 7 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Chi-squared Independence & Homogeneity class examples

Chi-Squared Practice Packet

Summarizers:

Selected Problems from Handout

Homework:
Work on packet

Days 8c
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #'s 7 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

FInish Chi-Squared Practice Packet

Summarizers:

Selected Problems from Handout

Homework:
none

Days 9a
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &

Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #'s 8 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Correlation & Linear Regression Review

Linear Regression hypothesis test for slope class example (guided practice)

Summarizers:

Selected Problems from Handout

Homework:
P. 198 #45

Days 9b
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
                Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #'s 8 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Linear Regression hypothesis test for slope practice packet

Summarizers:

Selected Problems from Handout

Homework:
Work on packet/study for quiz

Days 9c
Standard: Inference for Quantitative Data: Means (10% - 18% of AP Exam) &
                Chi-Squared and Inference for Slopes (4% - 10% of AP Exam)

Learning Target(s) & Success Criteria: #'s 7 & 8 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Chi-Squared & Linear Regression hypothesis test for slope Quiz

Summarizers:

Selected Problems from Handout

Homework:
Start preparing for the AP EXAM

***The rest of the time until May 17th will be spent preparing for the AP Exam by practicing FRQs and using AP classroom to practice MCQs