Two Ways to Investigate

How science and social studies organize evidence about city heat

9.CL.7 "Read, analyze, and evaluate texts from science, social studies, and other academic disciplines to determine how those disciplines treat domain-specific vocabulary and content organization."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the first sentence of each paragraph to track how the focus changes. Circle two field-specific terms in paragraph 1 and two in paragraph 2 to notice how each field names its evidence.

Why Is One Street Hotter?

1. A scientist studying urban heat starts with a measurement question: Do two nearby streets have different air temperatures at the same time? On a summer afternoon, a team places shielded air-temperature sensors at the same height on a tree-lined street and a street with little shade. They record readings at the same time and repeat the measurements on several days. This method controls for time of day, but traffic, wind, and building height may still differ. A science report presents its method before its results so readers can judge the comparison. A temperature gap shows a pattern, not its single cause.

2. A social studies researcher starts with a decision question: How did each street get its trees, and whose needs shaped the decisions? The researcher examines city budgets, meeting minutes, and zoning rules, which govern how land may be used. These sources might show when a planting program began, which blocks received trees, and whose requests officials recorded. The account places decisions in chronological order, then asks how residents experienced the results. It also examines equity, or whether benefits and burdens were shared fairly. A budget can document spending, but it cannot reveal what every resident wanted.

3. The two fields arrange their evidence differently, so reading both can change the question a city asks. The science report moves from a measurement question to a method, readings, and limits. The social studies account moves from past decisions to their effects on people, while checking whose voices appear in the records. If one street is warmer, a past planting budget may be relevant, but these sources alone cannot show that the budget caused the gap. Together, they suggest a better investigation: compare more streets, check planting records, and ask residents how they use shaded spaces.

2 ANSWER WITH EVIDENCE

Use the passage

1. What does “controls for time of day” mean here? Why does a science report explain this step before presenting results?

2. What does “equity” mean in paragraph 2? Why does the account raise this question after describing city records?

3. How does the order of information in a science report differ from the order in a social studies account?

4. Why would temperature readings and a planting budget not prove that the budget caused a temperature gap? Use a detail from the passage.

3 YOUR TURN

Your own words

Write 4 to 6 sentences explaining how a science report and a social studies account could investigate a new bus shelter. Give one field-specific term for each account, explain what evidence each would present first, and identify one claim their evidence alone could not prove.

ANSWER KEY

Two Ways to Investigate

GRADE 9 · 9.CL.7

PART 1 · READ AND MARK

Underline the first sentence of each paragraph to track how the focus changes. Circle two field-specific terms in paragraph 1 and two in paragraph 2 to notice how each field names its evidence. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What does "controls for time of day" mean here? Why does a science report explain this step before presenting results?	**The team measures both streets at the same time, making time of day less likely to explain a difference. Explaining the method first lets readers judge the comparison.**
2	What does "equity" mean in paragraph 2? Why does the account raise this question after describing city records?	**Equity means fairness in how benefits and burdens are shared. The records show where decisions were made, which helps the researcher ask who benefited.**
3	How does the order of information in a science report differ from the order in a social studies account?	**The science report moves from a measurement question through method and readings to limits. The social studies account traces past decisions, then considers their effects on people and whose voices the records include.**
4	Why would temperature readings and a planting budget not prove that the budget caused a temperature gap? Use a detail from the passage.	**Other factors, such as traffic, wind, or building height, may differ between the streets. The budget records spending, not every cause of a temperature difference.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

A science report could begin with a method for measuring air temperature at the shelter and at an uncovered stop at the same time. It would then present the readings and note differences in traffic or nearby buildings. A social studies account could begin with meeting minutes about why officials chose the shelter site. It could follow with riders' statements about who uses that stop. These sources could not prove that the shelter caused more people to ride the bus.

For the marking job, accept science terms such as "air-temperature sensors" and "controls for time of day," and social studies terms such as "meeting minutes," "zoning rules," and "equity." For Your Turn, accept other plausible evidence sequences if the terms fit their fields and the final limitation follows from the proposed evidence.