Riverton Heat File

Compare written, quantitative, and visual evidence before recommending an action.

CCSS.ELA-Literacy.RH.11-12.7 "Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each recommendation or decision-relevant claim, circle every number or measurement, and number the source details you would combine to decide Riverton's first action.

Which Cooling Step Comes First?

1. Source A, a city planning report, explains why summers feel different across Riverton. Pavement and dark roofs absorb sunlight, then release stored heat after sunset. In July 2025, the city placed temperature sensors in two neighborhoods at 9 p.m. The tree-lined Maple District averaged 78°F, while the mostly paved Warehouse Quarter averaged 84°F. The report warns that warmer nights can be especially risky for people without air conditioning because bodies have less time to cool. It recommends adding shade, reflective roofs, and places where residents can get drinking water.

2. Source B is a table from Riverton's 2024 cooling pilot. It compares afternoon ground temperatures on three similar blocks, measured on clear July days. Block | Main change | Average surface temperature: Cedar | new shade trees | 101°F; Pine | white roof coatings on nearby stores | 108°F; Ash | no change | 122°F. The table does not prove that one change alone caused every difference, since blocks may vary in traffic, building materials, and tree cover. Still, both treated blocks were cooler than the unchanged block, and the tree-shade block had the lowest recorded surface temperature.

3. Source C is a satellite map with a resident survey layered over it. Red areas show higher land-surface temperatures recorded at 2 p.m.; green areas show denser tree cover. The largest red area overlaps the Warehouse Quarter, where the map also marks two bus stops and an apartment complex for older adults. In the survey, 62 percent of 180 respondents from that neighborhood said they wait outdoors for buses at least four days each week. A transportation department memo adds that installing covered shade structures at the two stops would cost less and take less time than planting mature trees. City leaders must choose one first action before next summer.

2 ANSWER WITH EVIDENCE

Use the passage

1. Based on Sources A and C, which neighborhood has the strongest evidence of needing action first? Use one detail from each source.

2. What change is associated with the lowest surface temperature in Source B, and what limitation should prevent you from treating that result as final proof?

3. Why could the city reasonably choose covered bus shade structures before planting mature trees? Combine evidence from the map or survey with evidence from the transportation memo.

4. Does Source B alone justify a citywide decision to plant trees as the first solution? Explain by evaluating Source B and connecting it to either Source A or Source C.

3 YOUR TURN

Your own words

Write a 90-110 word recommendation to Riverton's city leaders. Choose one first action, use evidence from at least two sources, include one numerical detail, and evaluate one source limitation or trade-off.

ANSWER KEY

Riverton Heat File

HIGH SCHOOL · RH.11-12.7

PART 1 · READ AND MARK

Underline each recommendation or decision-relevant claim, circle every number or measurement, and number the source details you would combine to decide Riverton's first action. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Based on Sources A and C, which neighborhood has the strongest evidence of needing action first? Use one detail from each source.	**The Warehouse Quarter. Source A reports that it averaged 84°F at 9 p.m., compared with 78°F in Maple District, and Source C shows it as the largest hot area with exposed bus riders and an apartment complex for older adults.**
2	What change is associated with the lowest surface temperature in Source B, and what limitation should prevent you from treating that result as final proof?	**New shade trees are associated with the lowest temperature, 101°F. The blocks may differ in traffic, building materials, or existing tree cover, so the table cannot prove trees alone caused the difference.**
3	Why could the city reasonably choose covered bus shade structures before planting mature trees? Combine evidence from the map or survey with evidence from the transportation memo.	**The two stops are in the hottest mapped area, and 62 percent of 180 respondents wait outdoors for buses at least four days each week. The memo says covered structures would cost less and take less time than planting mature trees.**
4	Does Source B alone justify a citywide decision to plant trees as the first solution? Explain by evaluating Source B and connecting it to either Source A or Source C.	**No. Source B suggests that shade trees may cool a block, but it cannot isolate trees as the only cause. Source A recommends several cooling strategies, and Source C shows an immediate need for quick shade at heavily used bus stops.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Riverton should install covered shade structures at the two Warehouse Quarter bus stops before next summer. Source A shows that this mostly paved neighborhood averaged 84°F at 9 p.m., six degrees warmer than Maple District, so its residents face heat even after sunset. Source C strengthens the case because its red map identifies the area as especially hot, and 62 percent of 180 surveyed residents wait for buses outdoors at least four days weekly. The memo says shelters cost less and take less time than mature trees. Source B supports planting trees later, but its three-block comparison cannot prove trees alone caused the 101°F result.

Accept recommendations that clearly combine evidence from at least two sources or formats and accurately interpret the data. For the open task, accept different first actions when the student includes a numerical detail and evaluates a valid limitation or trade-off.