Shade or Evidence?

Judge sources by how well they answer a research question

9-10.W.5.c "Assess the usefulness of each source in answering the research question."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline one kind of evidence each source provides and circle one limit of each source. Number the sources from 1 (most direct) to 3 (least direct) for answering the research question.

A Hot Wait for the Bus

1. A Harbor City student is researching this question: Would adding shade at bus stops reduce riders' heat exposure during summer waits? One source is a June report from a local university. Researchers took readings at six covered stops and six uncovered stops during three July afternoons the previous year. At each stop, they recorded air temperature and globe temperature, which reflects heat from sunlight and surrounding surfaces. Uncovered stops had higher average globe temperatures, even when air temperatures were similar. The researchers observed only midday conditions, not morning commutes or winter weather.

2. The student also finds the city transit agency's current stop inventory. It lists each stop's address, whether it has a roof, and the average number of weekday boardings. The inventory shows that several busy stops have no roof. It does not say whether nearby buildings or trees shade the waiting area, and it contains no temperature readings. The boardings count trips begun at each stop, not how long riders wait there. A roof in the inventory may help the student locate a place to investigate, but the listing alone cannot describe conditions during a hot afternoon.

3. A third source is a survey posted by a neighborhood riders' group after a week of unusually hot weather. Eighty-two people responded; most said they wanted more shade, and several described leaving a stop to wait under a shop awning. The survey includes no record of when each person traveled or how hot their stop was. Anyone with the link could respond, so the results may not represent all riders. Still, these accounts raise questions the instruments and inventory cannot answer on their own, such as where people choose to stand while waiting.

2 ANSWER WITH EVIDENCE

Use the passage

1. How useful is the university report for understanding heat exposure during morning commutes? Give one relevant detail and one gap.

2. If the student needs to select stops for a new heat study, which is more useful, the transit inventory or the riders' survey? Use details from both sources.

3. Could the riders' survey alone show that shade lowers measured heat exposure? Explain what it provides and what it lacks.

4. Which is stronger evidence for a claim about heat exposure during a summer afternoon, the university report or the transit inventory? Explain why the other source is less direct.

3 YOUR TURN

Your own words

Investigate a new question: Would planting trees beside school entrances reduce students' heat exposure while they wait after school? In four sentences, invent two plausible sources, explain what each could tell you and one limit of each, then choose the more useful source and explain why.

ANSWER KEY

Shade or Evidence?

HIGH SCHOOL · 9-10.W.5.c

PART 1 · READ AND MARK

Underline one kind of evidence each source provides and circle one limit of each source. Number the sources from 1 (most direct) to 3 (least direct) for answering the research question. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How useful is the university report for understanding heat exposure during morning commutes? Give one relevant detail and one gap.	**It measures heat at local bus stops, but its readings were taken only at midday, so they do not show morning conditions.**
2	If the student needs to select stops for a new heat study, which is more useful, the transit inventory or the riders' survey? Use details from both sources.	**The inventory is more useful because it gives stop addresses, roof status, and boardings. The survey describes riders' experiences but does not consistently identify where or when they waited.**
3	Could the riders' survey alone show that shade lowers measured heat exposure? Explain what it provides and what it lacks.	**No. It shows that some riders want shade and move to find it, but it has no heat readings and may not represent all riders.**
4	Which is stronger evidence for a claim about heat exposure during a summer afternoon, the university report or the transit inventory? Explain why the other source is less direct.	**The university report is stronger because it compares heat readings at covered and uncovered stops on July afternoons. The inventory lists roofs but has no heat readings or information about other sources of shade.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

A school tree inventory could show which entrances have trees, but it would not measure heat. A local university study comparing afternoon globe temperatures at treed and bare school entrances could provide heat readings, but differences in pavement might also affect the results. The university study would be more useful for this question because it measures heat at the time students wait. I would use the inventory to find entrances for a follow-up study.

Accept rankings and choices supported by a clear link to the research question. Students should distinguish evidence of measured heat from information about stop locations and riders' experiences.