

Heat Evidence File

Sort source evidence before forming a conclusion.

12.R.1.B "Gather and organize information from various sources."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each source named in the passage and label it in the margin as records, map, sensor data, survey, or recommendation. Circle words or phrases that describe a source's limits, so you can sort evidence without treating every source as the same kind of proof.

Mapping a Hotter City

- ① On summer afternoons, the Riverton Public Health Office noticed that emergency calls for heat illness rose unevenly across the city. To investigate, analyst Maya Chen began with hospital intake records from June through August 2024. The records showed more heat-related visits from neighborhoods with little tree cover, but they did not explain conditions on particular blocks. Chen added satellite images from the city planning department, which mapped surface temperatures. Dark parking lots and wide roofs appeared hotter than nearby parks. She recorded each source's date, creator, method, and limits in a spreadsheet before drawing any conclusions.
- ② Next, Chen compared the maps with measurements collected by volunteer teams using calibrated air-temperature sensors. Volunteers took readings at 3 p.m. on six July days, standing in shade when possible to protect equipment. Their data generally matched the satellite pattern, yet air temperature was lower than surface temperature and changed quickly with wind and clouds. Chen also reviewed bus-stop surveys completed by 214 residents. Many respondents reported waiting in direct sun, especially where shelters lacked trees. Because surveys describe people's experiences rather than citywide temperatures, Chen kept those responses in a separate column. Organizing the evidence by source type prevented one kind of information from being mistaken for another.
- ③ Chen's final table listed a claim beside supporting and qualifying evidence. Hospital records and satellite images supported the claim that hotter, less shaded areas faced greater heat risk. Sensor readings strengthened the pattern, but Chen noted their limited times and dates. Survey responses showed where riders felt exposed, helping identify locations for possible shade improvements. The sources did not prove that pavement alone caused illness, since age, housing conditions, work, and access to cooling can also affect risk. Chen recommended that the city combine tree-canopy data, transit-stop locations, and neighborhood health information before selecting sites for new shade structures.

2 ANSWER WITH EVIDENCE Use the passage

- 1 List the four main evidence sources Chen uses. Next to each, state the kind of information it provides.

- 2 Which two sources should be placed in separate temperature categories? Explain how the passage distinguishes the information they provide.

- 3 Why did Chen place the bus-stop survey responses in a separate column instead of using them as citywide temperature data?

- 4 Organize one support-and-qualification pair for Chen's claim that hotter, less shaded areas faced greater heat risk. Name supporting evidence and one limit or caution.

3 YOUR TURN Your own words

Choose a school or community question that needs a decision. Gather information from three sources, then create a source organizer that gives each source's creator, date, key information, source type, and one limit. Write a two-sentence provisional synthesis that states what the sources suggest and what additional local information is needed.

PART 1 • READ AND MARK

Underline each source named in the passage and label it in the margin as records, map, sensor data, survey, or recommendation. Circle words or phrases that describe a source's limits, so you can sort evidence without treating every source as the same kind of proof. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	List the four main evidence sources Chen uses. Next to each, state the kind of information it provides.	Hospital intake records, heat-related visits by neighborhood; satellite images, surface temperatures; volunteer sensor readings, air temperatures at specific times and places; bus-stop surveys, residents' experiences waiting for transit.
2	Which two sources should be placed in separate temperature categories? Explain how the passage distinguishes the information they provide.	Satellite images map surface temperature, while volunteer sensors measure air temperature. The passage says air temperature is lower than surface temperature and changes quickly with wind and clouds.
3	Why did Chen place the bus-stop survey responses in a separate column instead of using them as citywide temperature data?	The surveys report residents' experiences of waiting in direct sun, not citywide physical temperature measurements.
4	Organize one support-and-qualification pair for Chen's claim that hotter, less shaded areas faced greater heat risk. Name supporting evidence and one limit or caution.	Supporting evidence may include hospital records and satellite images, or sensor readings. A qualification is that sensor readings were limited to certain times and dates, or that the sources do not prove pavement alone caused illness.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Question: Should the high school begin at 8:30 a.m. or later? 1. American Academy of Pediatrics, 2014 policy statement, recommends 8:30 a.m. or later for middle and high schools; medical professional organization; does not analyze this school's transportation schedule. 2. Centers for Disease Control and Prevention, 2015 report, found that 93 percent of U.S. high schools began before 8:30 a.m. in 2011 to 2012; national government report; the data are older and do not show local effects. 3. National Sleep Foundation, 2015 recommendations, states that teens ages 14 to 17 need 8 to 10 hours of sleep; expert recommendation; does not prove that a later bell time will increase sleep for every student. Together, the sources support examining a later start because adolescents need substantial sleep and medical experts recommend 8:30 a.m. or later. Before changing the schedule, the district should gather local evidence about buses, family schedules, and actual student sleep.

Accept accurate source categories and limits that are supported by the passage, including reasonable support-and-qualification pairings. For Part 3, accept varied topics and source formats when the student identifies three sources, distinguishes their evidence and limits, and writes a synthesis that does not overstate the evidence.