

Maps That Decide

Interpret how an explanatory text turns evidence into action.

11.P.EICC.2.c “Explain and learn concepts and processes by interpreting and constructing texts. (I/C)”

NAME _____

DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the four sentences that introduce a major stage of the heat-mapping process, and number them 1 through 4 in order. Circle the sentence that explains a limit on what the data can prove.

From Heat Readings to City Choices

- ① On a hot afternoon, temperatures can differ sharply from one city block to the next. Pavement, dark roofs, and sparse tree cover absorb and hold solar energy, while shaded parks often remain cooler. To understand this pattern, a city can create a heat map, a visual display of temperatures across an area. The map does more than show where the highest number appears. It helps planners see which neighborhoods experience repeated exposure to dangerous heat and which features, such as asphalt parking lots or mature trees, may influence local conditions.
- ② First, staff members place sensors at selected sites, including sidewalks, bus stops, schoolyards, and parks. They record temperatures at the same times on several days so that a single unusual reading does not control the result. Next, they compare the sensor data with satellite images and maps of land cover. A high temperature near a large paved surface suggests a possible connection, but it does not prove that pavement alone caused the heat. Researchers must consider shade, wind, building materials, and the time of day before drawing a conclusion.
- ③ Finally, planners combine the findings with information about who lives and works nearby. A block with many older adults, outdoor workers, or residents without reliable air conditioning may need attention sooner than a similarly hot block with more resources. The finished heat map becomes a decision-making text: it translates measurements into priorities that officials and community members can discuss. For example, a city might use the evidence to choose locations for trees, cooling centers, reflective roofs, or shaded transit stops. The map cannot make the decision by itself, but it gives public choices a visible, reviewable basis.

2 ANSWER WITH EVIDENCE Use the passage

1 Why do staff members record temperatures at the same times on several days?

2 How does paragraph 2 distinguish a possible connection from a proven cause?

3 What does the phrase “decision-making text” mean as it is used in paragraph 3?

4 Explain how the text moves from gathering evidence to choosing a response. Use two steps from the process.

3 YOUR TURN Your own words

Write one paragraph of 90 to 110 words explaining how your school could use evidence to make a decision about a shared-space problem. Include three numbered process stages, define one term with an appositive, state one limit on the evidence, and explain how the evidence could guide a decision.

PART 1 • READ AND MARK

Underline the four sentences that introduce a major stage of the heat-mapping process, and number them 1 through 4 in order. Circle the sentence that explains a limit on what the data can prove. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Why do staff members record temperatures at the same times on several days?	They do this so one unusual reading does not control the result.
2	How does paragraph 2 distinguish a possible connection from a proven cause?	A high temperature near pavement suggests a connection, but it does not prove pavement alone caused the heat.
3	What does the phrase “decision-making text” mean as it is used in paragraph 3?	The heat map turns temperature measurements into priorities that people can discuss and use when making choices.
4	Explain how the text moves from gathering evidence to choosing a response. Use two steps from the process.	Staff collect and compare temperature and land-cover data, then planners combine the findings with information about nearby residents to choose possible cooling actions.

PART 3 • YOUR TURN (SAMPLE ANSWER)

1. To investigate lunchtime crowding, staff could count students entering the cafeteria every five minutes for one week. A traffic pattern, a record of movement over time, would show when lines become longest. 2. They should compare those counts with menus, weather, and attendance because one unusually busy day may not represent the usual routine. 3. Next, the school could map where students wait and identify blocked doorways. The evidence could guide staggered lunch releases or an additional serving station. The counts would support, not dictate, the choice because student schedules and staffing also matter.

Accept equivalent explanations that accurately connect the text's evidence, limits, and decisions. For Part 3, accept varied school problems if the response includes all required text features and uses evidence logically.