

Map the Meaning

Track structure, questions, and summary in a complex informational text.

10.DSR.E "Use reading strategies as needed to aid and monitor comprehension when encountering challenging sections of text. These sense-making strategies attend to text structure, common organizational structures, summarizing..."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Circle transition words or phrases that show a shift in ideas. In the margin, write a 5- to 8-word summary of each paragraph so you can track how the text develops.

Heat Maps, Cooler Cities

- ① On a July afternoon, two neighborhoods only a mile apart can feel noticeably different. Dark roofs, asphalt, and sparse tree cover absorb sunlight and release heat slowly after sunset, creating an urban heat island. The effect is not merely uncomfortable. Higher nighttime temperatures can make sleep difficult and can increase health risks during heat waves, especially for older adults and people without air conditioning. Yet a citywide temperature reading can hide these local differences. To understand where protection is most needed, researchers must compare conditions block by block rather than assume that every resident experiences the same heat.
- ② To reveal that pattern, volunteers in several cities have driven planned routes with sensors attached to their cars. The instruments record air temperature, humidity, and location every few seconds. Researchers then combine thousands of readings into maps that show cooler and hotter corridors. This method has limits: a measurement made at one time cannot represent every day or every season, and wind can shift conditions quickly. However, repeated trips and comparisons with fixed weather stations help scientists judge whether a hot spot is persistent. The maps do not explain every cause by themselves, but they provide evidence that can guide closer investigation.
- ③ Once officials identify hotter blocks, they can weigh several responses. Planting trees can provide shade and cool surrounding air, but young trees need water and years to grow. Reflective roofs can reduce the heat absorbed by buildings, while cooling centers offer immediate relief during emergencies. Because each choice has costs and benefits, residents should ask who will receive the protection and who will maintain it. A useful plan pairs map data with community observations, such as which bus stops lack shade or which apartments stay hot at night. In this way, measurement becomes a starting point for decisions, not a final answer.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What does the word “Yet” signal in paragraph 1? Explain the contrast that follows it.

2 How is paragraph 2 organized? Name the sequence of ideas the paragraph presents.

3 Write one question that paragraph 2 leaves unanswered about a hot spot. Then cite the sentence that shows why this question remains.

4 Write a 25- to 35-word summary of the whole passage.

3 YOUR TURN _____ Your own words

Choose a challenging 120- to 200-word section from a current class text. Circle two structure signal words, label the text structure, write one question you need answered, and write a 30- to 40-word summary that separates the main idea from supporting details.

PART 1 • READ AND MARK

Circle transition words or phrases that show a shift in ideas. In the margin, write a 5- to 8-word summary of each paragraph so you can track how the text develops. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What does the word “Yet” signal in paragraph 1? Explain the contrast that follows it.	It signals a contrast between a citywide temperature reading and the different heat conditions that people can experience block by block.
2	How is paragraph 2 organized? Name the sequence of ideas the paragraph presents.	It explains the mapping method, describes the method's limits, and explains how repeated measurements make the evidence more useful.
3	Write one question that paragraph 2 leaves unanswered about a hot spot. Then cite the sentence that shows why this question remains.	Possible question: What causes this hot spot? Evidence: “The maps do not explain every cause by themselves, but they provide evidence that can guide closer investigation.”
4	Write a 25- to 35-word summary of the whole passage.	Urban heat varies by block, so researchers map repeated sensor readings to identify persistent hot spots. Officials can then combine data and community observations to choose fair, practical cooling responses.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Signal words: because; as a result. Structure: cause and effect. Question: How do divers reduce lionfish numbers? Summary: Lionfish spread in Atlantic reefs because they reproduce quickly and have few predators. As a result, they consume native fish, so divers and researchers use targeted removal to protect reef food webs.

Accept reasonable labels for paragraph 2, such as method, limitations, and evidence, if the student explains the sequence accurately. For the open task, accept a valid structure label, two genuine signal words from the selected text, a text-based question, and a 30- to 40-word summary focused on the main idea.