

Heat Map Reading

Track structure to make sense of a complex informational text.

11.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 Underline transition words and phrases that show how ideas connect, then number each major shift in the text's structure in the margin.

Cooling a Hot City

- ① On a summer afternoon, a city block can hold heat long after nearby parks begin to cool. Dark roofs, asphalt, and concrete absorb solar energy during the day and release it slowly after sunset. This pattern, called the urban heat island effect, can make densely built neighborhoods warmer than surrounding rural areas. The difference matters most during heat waves, when high nighttime temperatures give bodies less time to recover. Researchers do not find the same conditions on every block, however. Tree cover, building density, pavement, wind, and access to air conditioning can all change how severely residents experience heat.
- ② To reduce this risk, cities use several strategies, but each has limits. Planting trees can shade sidewalks and buildings, while their leaves cool the air through transpiration, the release of water vapor. Light-colored roofs reflect more sunlight than dark surfaces, so they may lower roof temperatures. Some cities also open cooling centers during extreme heat. Yet these measures do not work equally well everywhere. Young trees need water and years to develop broad canopies, reflective roofs may be costly to install, and cooling centers help only people who can reach them. Therefore, planners must match solutions to local conditions rather than assume one fix will serve every neighborhood.
- ③ Consider a school courtyard with little shade and wide stretches of blacktop. If administrators replace only a small patch of pavement, students may notice little change at midday because surrounding surfaces still absorb heat. If they combine shade trees, covered walkways, and a cool roof on the gym, the benefits may reach more parts of the campus. Even then, decision makers should ask who uses each space, when heat is greatest, and whether maintenance funds are available. Those questions turn a general recommendation into a plan that can be tested and revised.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 How does the text move from paragraph 1 to paragraph 2? Name the organizational shift and cite one phrase that signals it.

2 Write one question a reader could ask about the limits of cooling centers, then answer it using evidence from paragraph 2.

3 In one sentence of 20 to 30 words, summarize paragraph 2.

4 What does the school courtyard example add to the text's overall structure? Explain its purpose.

3 YOUR TURN _____ Your own words

Choose a challenging 100 to 150 word informational paragraph from your current reading. Mark two signal words, label its main organizational structure in the margin, and write a two-sentence, 35 to 50 word note that states one question you asked and answered from the paragraph and a summary.

PART 1 • READ AND MARK

Underline transition words and phrases that show how ideas connect, then number each major shift in the text's structure in the margin. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How does the text move from paragraph 1 to paragraph 2? Name the organizational shift and cite one phrase that signals it.	It shifts from explaining the urban heat problem to presenting solutions and their limits. "To reduce this risk" signals the shift.
2	Write one question a reader could ask about the limits of cooling centers, then answer it using evidence from paragraph 2.	Question: Why might cooling centers not help everyone? Answer: They help only people who can reach them.
3	In one sentence of 20 to 30 words, summarize paragraph 2.	Cities can reduce urban heat through trees, reflective roofs, and cooling centers, but costs, access, and local conditions limit any single solution.
4	What does the school courtyard example add to the text's overall structure? Explain its purpose.	It applies the earlier solutions to a specific setting and shows that planners must consider location, users, timing, and maintenance resources.

PART 3 • YOUR TURN (SAMPLE ANSWER)

In a paragraph about coastal flooding, I labeled cause and effect, marked because and therefore, and asked why high tides reach streets more often, finding that rising sea level makes flooding more likely. My summary: Higher sea levels increase routine coastal flooding, so communities must plan for frequent disruptions.

Accept accurate identifications of structure that are supported by textual evidence, including problem and solution with limitations. For the open task, accept varied texts and wording if the student marks valid signals, identifies a defensible structure, asks and answers a text-based question, and summarizes accurately.