Mapping City Heat

Read how evidence can help communities respond to heat.

6.DSR.B "Proficiently read and comprehend a variety of literary and informational texts that exhibit complexity at the lower range of the grade 6-8 band (See the Quantitative and Qualitative Analysis chart for determining complexity in the..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Circle details that explain why city heat is a concern, and underline details that show how heat maps can guide a response. Your marks will help you track how the author connects a problem to possible solutions.

Finding Hot Spots

1 On a July afternoon, a block with few trees can feel much hotter than a nearby park. Pavement and dark roofs absorb sunlight, then release heat slowly after sunset. This pattern, called the urban heat island effect, can make neighborhoods warmer than nearby rural areas. Heat is not shared evenly within a city. Streets with less shade, more asphalt, and older buildings may stay especially hot, putting people who walk, wait for buses, or lack air conditioning at greater risk.

2 To learn where heat gathers, some cities work with residents on heat-mapping projects. Volunteers carry small sensors on cars or bicycles during planned routes. The sensors record air temperature and humidity at many locations within a short time. Researchers combine the readings with maps that show tree cover, pavement, and building patterns. A single hot reading does not prove why an area is warm. Yet repeated measurements can reveal a pattern that city planners can study.

3 The maps do not solve the problem by themselves. They help people decide where limited resources might have the strongest effect. A city might plant shade trees near busy bus stops, paint some roofs with lighter materials, or open cooling centers during heat waves. Planners must also listen to residents, because a map cannot show every concern, such as whether renters can afford higher costs after improvements. By connecting measurements with local experience, communities can make heat-safety plans more fair and useful.

2 ANSWER WITH EVIDENCE

Use the passage

1. What is the central idea of the passage?

2. Why does the author explain that one hot reading does not prove why an area is warm?

3. How does paragraph 2 develop the heat problem explained in paragraph 1?

4. What does the word "resources" mean as it is used in paragraph 3?

3 YOUR TURN

Your own words

Write 3 sentences explaining how the author shows that useful heat plans need both measurements and local knowledge. Include one detail from paragraph 2 and one different detail from paragraph 3.

ANSWER KEY

Mapping City Heat

GRADE 6 · 6.DSR.B

PART 1 · READ AND MARK

Circle details that explain why city heat is a concern, and underline details that show how heat maps can guide a response. Your marks will help you track how the author connects a problem to possible solutions. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What is the central idea of the passage?	**Heat maps can help communities identify hotter areas and plan fairer ways to reduce heat risks.**
2	Why does the author explain that one hot reading does not prove why an area is warm?	**One reading is not enough to show a reliable pattern or the cause of the heat. Repeated measurements provide stronger evidence.**
3	How does paragraph 2 develop the heat problem explained in paragraph 1?	**Paragraph 2 explains how volunteers and sensors collect repeated temperature data to identify where heat gathers.**
4	What does the word "resources" mean as it is used in paragraph 3?	**Resources are the limited money, materials, services, or effort a city can use to address heat.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The author shows that temperature information can reveal patterns, but it cannot explain every need. In paragraph 2, repeated sensor readings show which places are warmer. In paragraph 3, the author says planners should listen to residents because maps cannot show concerns such as higher costs after improvements.

Accept central-idea responses that connect identifying uneven city heat with planning responses. For the open task, look for exactly 3 sentences, one accurate detail from paragraph 2, one accurate detail from paragraph 3, and an explanation of why both kinds of information matter.