Hot City Clues

Compare what you know with evidence and missing information.

7.P.EICC.3.c "Draw from, compare, build, and integrate prior knowledge with the material in the text, addressing inconsistencies or gaps and adding to knowledge repertoires as appropriate. (I)"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline two details that add to or challenge what you already know about hot places. Circle one detail that shows information planners still need.

Why Some City Places Stay Hot

1 On a sunny afternoon, a city block can feel much hotter than a nearby park. Many people already know that pavement becomes hot in the sun. Scientists add that dark roofs, roads, and parking lots absorb solar energy and release some of it slowly. This creates an urban heat island, an area where built surfaces can keep temperatures higher, especially after sunset. The effect does not mean every city street is always hotter than every rural place, because wind, clouds, and local surfaces also matter.

2 Trees can reduce heat in two ways. Their leaves cast shade, so less sunlight reaches sidewalks and walls. Trees also release water vapor through transpiration, which can cool the air nearby. A person might assume that planting a few young trees will quickly cool an entire neighborhood. The text suggests a gap in that idea: young trees have small canopies, and trees need years of growth, water, and care before they provide broad shade. Parks, green roofs, and lighter-colored pavement can work together.

3 City planners use temperature maps to decide where cooling projects may help most. These maps sometimes show that neighborhoods with fewer trees and more paved land are warmer. However, a map is not a complete answer. Planners also need to ask residents where they wait for buses, walk, or live without air conditioning. Comparing measurements with local experiences can reveal gaps, such as a hot bus stop that a map does not show clearly. The best plans combine data, community knowledge, and long-term maintenance.

2 ANSWER WITH EVIDENCE

Use the passage

1. How does paragraph 1 add to the idea that pavement gets hot in the sun?

2. What belief about young trees does paragraph 2 challenge, and what evidence challenges it?

3. What gap can appear when planners use only a temperature map?

4. A planner learns that an area has few trees and much pavement. What should the planner compare before choosing a cooling project?

3 YOUR TURN

Your own words

Think of a place you know that gets hot. Write exactly three sentences: state one thing you already believed, compare it with one idea from the passage, and name one piece of information you would need before suggesting a cooling change.

ANSWER KEY

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GRADE 7 · 7.P.EICC.3.c

PART 1 · READ AND MARK

Underline two details that add to or challenge what you already know about hot places. Circle one detail that shows information planners still need. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How does paragraph 1 add to the idea that pavement gets hot in the sun?	**It explains that dark paved surfaces absorb solar energy and release it slowly, which can keep an area warmer after sunset.**
2	What belief about young trees does paragraph 2 challenge, and what evidence challenges it?	**It challenges the belief that a few young trees will quickly cool a whole neighborhood. Young trees have small canopies and need years of growth, water, and care before providing broad shade.**
3	What gap can appear when planners use only a temperature map?	**A map may not clearly show places where people experience heat, such as a hot bus stop.**
4	A planner learns that an area has few trees and much pavement. What should the planner compare before choosing a cooling project?	**The planner should compare temperature-map measurements with residents' experiences, including where people wait, walk, or live without air conditioning.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I used to think the blacktop at our school was hot only while the sun was out. The passage adds that dark surfaces can release stored energy slowly, so the area may stay warm after sunset. Before suggesting trees or lighter pavement, I would check where students wait and measure temperatures there.

Accept responses that accurately connect a prior belief to a relevant detail from the passage and identify a reasonable missing piece of local information. The open response must have exactly three sentences and include all three requested parts.