Where Heat Builds

Trace how an explanation moves from a problem to possible responses.

RI.7.5 "Analyze the structure an author uses to organize a text, including how the different sections contribute to the whole and to the development of the ideas."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Number the paragraphs 1 to 3, then underline one sentence in each that best shows what that section adds to the explanation.

Why One City Block Feels Hotter

1. At noon on a summer day, a person walking across a parking lot may feel hotter than someone standing beneath a nearby tree. Both people share the same weather report, yet the surfaces around them create different experiences of heat. In cities, dark pavement and roofs can make built-up areas warmer than nearby places with more plants. This pattern is called the urban heat island effect. Understanding why it happens matters because heat can make outdoor work, travel, and even a walk to the store harder.

2. Sunlight warms pavement and rooftops during the day. These surfaces store some of that heat and release it later, so streets may stay warm after sunset. Trees change that pattern in two ways: their leaves shade the ground, and water released from their leaves helps cool the air. A street with few trees misses both benefits. Tall buildings can also slow moving air, which may limit cooling. These details explain why the difference between a parking lot and a shaded path is more than a momentary feeling.

3. Cities can reduce some heat by planting trees and using lighter-colored roofing materials that reflect more sunlight. Each choice addresses a cause described earlier: trees provide shade, while reflective roofs absorb less heat. However, no single change cools every place equally. A new tree takes time to grow, and a roof change does little for a person crossing an unshaded street. To plan useful changes, a city must look at where heat builds up and how people use those spaces.

2 ANSWER WITH EVIDENCE

Use the passage

1. Why does the author begin with two people in nearby places instead of opening with solutions?

2. How does paragraph 2 build on the difference introduced in paragraph 1? Name two details that help explain it.

3. What change in the explanation does the sentence “However, no single change cools every place equally” signal?

4. How does the order of the three paragraphs develop the article’s main idea? Describe what each paragraph contributes.

3 YOUR TURN

Your own words

Imagine adding a fourth section to the article. In three sentences, describe new information it would cover, explain how that information would develop the main idea, and tell why the section belongs after the current ending.

ANSWER KEY # Where Heat Builds

GRADE 7 · RI.7.5

PART 1 · READ AND MARK

Number the paragraphs 1 to 3, then underline one sentence in each that best shows what that section adds to the explanation. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Why does the author begin with two people in nearby places instead of opening with solutions?	**The contrast makes the heat difference easy to picture and gives readers a reason to learn what causes it.**
2	How does paragraph 2 build on the difference introduced in paragraph 1? Name two details that help explain it.	**Paragraph 2 explains that pavement stores and releases heat, while trees provide shade and release water that helps cool the air.**
3	What change in the explanation does the sentence “However, no single change cools every place equally” signal?	**It shifts from possible solutions to their limits, preparing readers for the point that cities must plan for specific places.**
4	How does the order of the three paragraphs develop the article’s main idea? Describe what each paragraph contributes.	**Paragraph 1 introduces the heat difference, paragraph 2 explains its causes, and paragraph 3 considers solutions and why they must fit each place.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I would add a section about how residents could record temperatures on shaded and unshaded walking routes at the same time of day. This information could help show where heat affects walkers most. Placing it after the current ending would show how a city could gather evidence before choosing changes for specific places.

Accept different underlined sentences when students can explain how each one reveals the paragraph’s role. For Your Turn, accept a plausible new section that develops the article’s idea and a clear reason for its placement.