City Heat Clues

Read closely, then restate key ideas in your own words.

ELA.9.R.3.2 "Paraphrase content from grade-level texts."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the details that explain what causes urban heat and what can reduce it. Number 1, 2, and 3 beside the three ideas you think are most important to include in a paraphrase.

Why Cities Hold Heat

1 On a hot summer afternoon, a city can be several degrees warmer than nearby farmland. This difference is called the urban heat island effect. Dark roofs, asphalt streets, and parking lots absorb sunlight and release heat slowly after sunset. Tall buildings can block breezes that might otherwise cool a neighborhood. In contrast, trees shade sidewalks and cool the air when water evaporates from their leaves. The effect can make heat waves more dangerous for people who live and work in densely built areas with little shade.

2 Researchers measure urban heat by comparing air temperatures at different locations and by studying satellite images of land surfaces. The images often show the hottest areas as large, unshaded stretches of pavement and rooftops. City planners use these maps to decide where shade could help most. One response is planting trees along walking routes and near bus stops. Another is installing lighter-colored roofs or pavement, which absorb less solar energy than dark materials. These changes do not erase every temperature difference, but they can lower surface temperatures and make outdoor spaces safer during extreme heat.

3 However, cooling a city requires more than choosing a single material or planting a few trees. Young trees need water and care, especially in dry regions, and their benefits grow as their canopies widen over time. Light-colored pavement may reduce heat, yet residents may object if glare becomes stronger. Planners therefore consider costs, maintenance, local climate, and which neighborhoods lack shade. They also work with residents, because a project is more likely to last when the people using a street or park can help shape the plan. Reducing urban heat is both a design problem and a community decision.

2 ANSWER WITH EVIDENCE

Use the passage

1. In one sentence, paraphrase why built areas can stay hot after the sun goes down. Do not copy a phrase longer than three words.

2. Paraphrase how trees affect a hot neighborhood. Include two ways described in the passage.

3. Paraphrase how researchers identify places that need cooling improvements. Include the tools they use and what they learn.

4. In one or two sentences, paraphrase why planners must consider more than whether an idea can lower heat.

3 YOUR TURN

Your own words

Paraphrase the third paragraph in 45 to 55 words. State its central idea and include at least two supporting details, using your own wording and no copied phrase longer than three words.

ANSWER KEY

City Heat Clues

GRADE 9 · ELA.9.R.3.2

PART 1 · READ AND MARK

Underline the details that explain what causes urban heat and what can reduce it. Number 1, 2, and 3 beside the three ideas you think are most important to include in a paraphrase. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	In one sentence, paraphrase why built areas can stay hot after the sun goes down. Do not copy a phrase longer than three words.	**Roofs and pavement store warmth during the day and give it off gradually at night, while buildings may limit cooling air movement.**
2	Paraphrase how trees affect a hot neighborhood. Include two ways described in the passage.	**Trees reduce heat by providing shade and by cooling nearby air as moisture evaporates from their leaves.**
3	Paraphrase how researchers identify places that need cooling improvements. Include the tools they use and what they learn.	**They compare temperatures in different places and examine satellite views to find exposed pavement and rooftops where shade could be most useful.**
4	In one or two sentences, paraphrase why planners must consider more than whether an idea can lower heat.	**A plan must also account for expense, upkeep, weather conditions, and unequal access to shade. Resident input can help make a project workable and lasting.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Making a cooler city involves long-term choices, not one quick fix. Newly planted trees require regular attention and become more useful as they mature. Reflective paving can create unwanted brightness, so officials must weigh such drawbacks, neighborhood needs, and residents' ideas before selecting a project.

Accept accurate restatements that preserve the passage's meaning while using substantially different wording and sentence structure. For the open response, check for 45 to 55 words, a central idea, and at least two accurate details from paragraph three.