Rooftop Word Choices

Read how language shapes a report on city heat.

RI.8.4 "Determine the meaning of words and phrases as they are used in a text, including figurative, connotative and technical meanings; analyze the impact of specific word choices on meaning and tone."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline one technical term, circle two figurative phrases, and number two word choices that shape the tone, then write a tone word beside each number.

Can a Roof Cool a City?

1 On a July afternoon, two rooftops in the same neighborhood can feel like different planets. A black roof absorbs much of the sunlight that strikes it, then releases heat into the air. A pale roof reflects more sunlight, so its surface often stays cooler. This difference matters below the rooftops, too. When many buildings and streets store heat, a city can remain warm after sunset. Scientists call this pattern the urban heat island effect, but for residents, it can mean another restless night.

2 Researchers use the word albedo for the share of sunlight a surface reflects. Fresh snow has high albedo; dark asphalt has low albedo. A cool roof is designed to reflect more sunlight than a conventional dark roof. It does not make summer disappear. Instead, it can lower a building's need for air conditioning, especially in sunny weather. Some cities offer rebates to encourage these roofs. Such programs treat rooftops as overlooked tools in a larger effort to manage heat.

3 Still, a shiny roof is not a silver bullet. Shade from trees can cool sidewalks where people actually walk, while a roof mostly changes conditions at and inside a building. Trees also need space and water, which some blocks lack. Planners must weigh these limits rather than promise one perfect fix. When a city describes its rooftops as a 'front line' against heat, it may persuade residents to support new building policies. Yet catchy language cannot replace careful planning or make every neighborhood's needs the same.

2 ANSWER WITH EVIDENCE

Use the passage

1. What does “restless night” suggest about the effect of city heat on residents? How does the phrase affect the tone?

2. What does “low albedo” mean when it describes dark asphalt? Use a clue from the passage.

3. What does “not a silver bullet” mean here? Why is that phrase more pointed than saying a cool roof is “not a complete solution”?

4. How does calling rooftops a “front line” against heat change the tone compared with calling them “part of a city plan”?

3 YOUR TURN

Your own words

Write a four-sentence message for neighbors choosing roof materials. Include one accurate technical term from the passage, invent a figurative phrase that is not in the passage, and explain how your phrase shapes the message's tone.

ANSWER KEY

Rooftop Word Choices

GRADE 8 · RI.8.4

PART 1 · READ AND MARK

Underline one technical term, circle two figurative phrases, and number two word choices that shape the tone, then write a tone word beside each number. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What does "restless night" suggest about the effect of city heat on residents? How does the phrase affect the tone?	**Heat may make it hard for residents to sleep. The phrase gives the report an uneasy, human-centered tone.**
2	What does "low albedo" mean when it describes dark asphalt? Use a clue from the passage.	**It means asphalt reflects a small share of sunlight. The passage defines albedo as the share of sunlight a surface reflects.**
3	What does "not a silver bullet" mean here? Why is that phrase more pointed than saying a cool roof is "not a complete solution"?	**A cool roof cannot solve city heat on its own. The figurative phrase challenges the idea of a quick, perfect fix.**
4	How does calling rooftops a "front line" against heat change the tone compared with calling them "part of a city plan"?	**"Front line" makes the effort sound urgent, like a shared struggle, rather than a routine planning decision.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Before replacing a roof, consider a pale material that reflects more sunlight. A roof with higher albedo reflects a larger share of sunlight. It can act like a sun umbrella for the building. That image gives this message a practical, hopeful tone without promising to cool every sidewalk.

Accept other supported interpretations of tone. For the open task, check that the technical term is used accurately, the figurative phrase is original, and the student explains its effect on tone.