

Cooling Words Count

Study how exact terms make an explanation of urban heat clear.

8W2.c "Use precise language and content-specific vocabulary to explain a topic."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline five content-specific terms and circle two precise verbs that explain how a cooling strategy works, so you can notice how exact language makes an explanation clear.

Cooling a Hot Neighborhood

- ① On a sunny afternoon, a parking lot can become much hotter than a nearby park. This difference is part of the urban heat island effect, a pattern in which built surfaces raise local temperatures. Dark asphalt absorbs solar radiation and stores thermal energy. Later, it releases that energy slowly, warming the air above it. Grass and tree leaves, in contrast, shade the ground and cool surrounding air as water evaporates from their surfaces. The result is a small-scale temperature difference that people can feel while walking through a neighborhood.
- ② Urban planners can reduce this effect by changing materials and adding vegetation. A light-colored roof has a higher albedo, meaning it reflects more incoming sunlight than a dark roof. Permeable pavement allows rainwater to enter the ground instead of rushing into storm drains. If water remains near the surface, evaporation can remove heat from the area. Trees also provide canopy cover, which blocks direct sunlight before it reaches sidewalks. These strategies do not change the weather, but they can lower temperatures in specific parts of a city.
- ③ Precise language helps readers understand why these choices work. The general word "stuff" would not show whether a planner means asphalt, a reflective roof coating, or a tree canopy. Likewise, the verb "cool" is clearer when an explanation names the process, such as evaporation or shade. Content-specific terms connect a claim to a cause. Rather than stating that trees make an area better, an accurate explanation can say that canopy cover reduces direct solar radiation on pavement. Such wording gives readers a clear, testable picture of the change.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Name two content-specific terms from the passage. Explain what each term helps the reader understand.

2 How does the passage precisely explain why a light-colored roof can help reduce heat? Use the word "albedo" in your answer.

3 Why is the word "stuff" less useful than the specific examples in the third paragraph? Name two examples the passage gives.

4 What precise cause-and-effect relationship does the passage give for canopy cover and pavement?

3 YOUR TURN _____ Your own words

Choose one hot area at your school, such as a blacktop, sidewalk, or bus zone. Write three sentences that propose one change to cool it, name the actual surface, use at least three content-specific terms from the passage, and explain the cause-and-effect relationship.

PART 1 • READ AND MARK

Underline five content-specific terms and circle two precise verbs that explain how a cooling strategy works, so you can notice how exact language makes an explanation clear. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Name two content-specific terms from the passage. Explain what each term helps the reader understand.	Answers may include urban heat island effect, a pattern in which built surfaces raise local temperatures; albedo, how much incoming sunlight a surface reflects; or canopy cover, tree cover that blocks direct sunlight.
2	How does the passage precisely explain why a light-colored roof can help reduce heat? Use the word "albedo" in your answer.	A light-colored roof has a higher albedo, so it reflects more incoming sunlight than a dark roof.
3	Why is the word "stuff" less useful than the specific examples in the third paragraph? Name two examples the passage gives.	"Stuff" does not identify the material or feature being discussed. The passage gives examples such as asphalt, reflective roof coating, and tree canopy.
4	What precise cause-and-effect relationship does the passage give for canopy cover and pavement?	Canopy cover reduces direct solar radiation on pavement.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Our school could replace part of the black asphalt beside the basketball court with permeable pavement and plant shade trees. The pavement would let rainwater enter the ground, so evaporation could remove some heat. Tree canopy cover would reduce direct solar radiation on the court, making the surface less hot during afternoon practices.

Accept accurate terms from the passage and explanations that connect a specific feature or process to a result. For the open response, accept reasonable cooling proposals when the student names a real surface, uses at least three precise terms, and explains how the change would work.