Cooler by Design

Trace how an explanation moves from a problem to a practical choice.

11-12.WHST.2.a "Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aid comprehension."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Read the passage, then underline the sentence that introduces its main problem, circle the two cooling tools, and number the three headings in the order they move from problem to decision. Use your marks to track how the writer connects and distinguishes ideas.

Choosing How to Cool a City Block

1 **Why One Block Feels Hotter** On a July afternoon, two streets in the same city can feel strikingly different. Dark pavement and roofs absorb sunlight, while sparse tree cover leaves people in direct sun. Buildings and pavement also release stored heat after sunset, so the difference can persist into the evening. This pattern, often called the urban heat island effect, matters most where residents cannot easily escape the heat. A useful response must do more than lower a temperature reading: it must reach people where they walk, wait, and live. Two possible tools are street trees and reflective roofs.

2 **Two Tools, Different Reach** Street trees shade sidewalks and parked cars; their leaves also cool nearby air as water evaporates. That makes trees especially valuable along walking routes and at bus stops, but they need room for roots, water while becoming established, and long-term care. A reflective roof works differently. By sending more sunlight away from a building, it can reduce heat entering upper rooms and lower demand for air-conditioning in some buildings. Yet a roof does not directly shade a person waiting for a bus. The tools address related heat problems, but they serve different places and people.

3 **Match the Tool to the Need** Imagine a block with an unshaded bus stop beside an apartment building whose top-floor rooms overheat. Planting trees near the stop could improve conditions for riders, while a reflective roof could help address heat inside the building. Neither choice is automatic. Underground pipes may limit planting sites, and a roof's condition may affect whether a coating is practical. A neighborhood plan should therefore identify who faces heat, where exposure occurs, and what each site can support. Organizing the discussion by problem, tools, and local choices keeps the connection between cooling method and human need visible.

2 ANSWER WITH EVIDENCE

Use the passage

1. How does paragraph 1 introduce both the problem and the reason to compare cooling tools?

2. How do the three bold headings guide you from an explanation toward a decision?

3. What distinction between the two tools does paragraph 2 establish, and how does paragraph 3 apply it?

4. Where would a two-column comparison table best fit? Give its column headings and one passage detail for each column.

3 YOUR TURN

Your own words

Choose a school problem other than heat, then write a heading and one paragraph of 5 to 7 sentences. Introduce the problem, distinguish two possible responses, connect each to a different need or constraint, and end with a parenthetical note naming a useful table or graphic and what it would show.

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PART 1 · READ AND MARK

Read the passage, then underline the sentence that introduces its main problem, circle the two cooling tools, and number the three headings in the order they move from problem to decision. Use your marks to track how the writer connects and distinguishes ideas. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How does paragraph 1 introduce both the problem and the reason to compare cooling tools?	**It describes heat differences between city streets and explains that a response must reach people where they experience heat. It then names street trees and reflective roofs as tools to consider.**
2	How do the three bold headings guide you from an explanation toward a decision?	**They move from identifying the heat problem, to distinguishing two tools, to matching a tool with a specific need.**
3	What distinction between the two tools does paragraph 2 establish, and how does paragraph 3 apply it?	**Trees shade outdoor spaces, while reflective roofs can reduce heat entering buildings. Paragraph 3 connects trees to bus riders and a reflective roof to overheated top-floor rooms.**
4	Where would a two-column comparison table best fit? Give its column headings and one passage detail for each column.	**After paragraph 2. Columns: Street trees and Reflective roofs. Trees shade sidewalks but need root space; reflective roofs reduce heat entering upper rooms but do not shade bus riders.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Cutting Paper Waste

Our school's discarded handouts include sheets with blank backs, so reducing waste should start with how we use each page. A reuse tray can supply scrap paper for drafts, but it will not help when students need to turn in final work. Digital submissions can avoid printing final drafts, although students need dependable device access. For classrooms without enough devices, the tray is an immediate, low-cost option. Where access is reliable, digital submissions can prevent more pages from being printed. These strategies solve different parts of the problem, so teachers should match each one to the kind of work students do (a two-column table could compare required supplies and best uses).

Accept equivalent descriptions of the passage's problem-to-decision structure and tool comparison. For the open task, look for a clear heading, a meaningful distinction between responses, and a proposed visual that would clarify that distinction.