Where Shade Falls

Trace how two ideas build a fuller account of urban heat.

RI.11-12.2 "Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline details about how trees cool streets, circle details about who can use that cooling, and number one sentence in each paragraph that shows how the ideas connect or change.

The Shade a City Needs

1 At noon on a hot day, two bus stops a few blocks apart can feel like different cities. At the first, a tree shades the bench and pavement. At the second, sunlight strikes bare concrete. Leaves intercept sunlight, and water evaporating from them cools nearby air. Shade also keeps pavement from storing as much heat to release after sunset. Planting trees can therefore make a street more comfortable during the day and slower to warm its surroundings at night. Yet a tree's cooling effect depends on its size and location, not simply on whether a neighborhood has trees.

2 Where trees grow is not just a question of climate. Street widths, buried utilities, and available soil shape where a tree can survive. Past choices about land use and public spending also affect which blocks have room for mature trees. A city might count two neighborhoods as equally green even if one has trees along busy walking routes while the other has most of its greenery inside private yards. For a resident waiting for a bus, that distinction matters more than a citywide canopy total. Cooling is a physical process, but access to it is a public decision.

3 Even a well-placed sapling offers little immediate shade. It needs water, enough soil for its roots, and protection from damage before its canopy can spread. A city that plants hundreds of trees but neglects their care may announce progress without making hot walks safer. Residents can identify exposed routes, while planners can check whether those routes have space for roots and funds for upkeep. Neither planting alone nor counting trees alone solves the problem. The most effective plan connects the science of cooling to decisions about where shade is needed and whether it can last.

2 ANSWER WITH EVIDENCE

Use the passage

1. What two central ideas emerge across the first two paragraphs? Give one detail that helps develop each idea.

2. How does the comparison of the two neighborhoods in paragraph 2 complicate the point about cooling in paragraph 1?

3. How does paragraph 3 develop both central ideas beyond what the first two paragraphs establish?

4. Why would counting planted trees alone give an incomplete account of the problem? Connect evidence from at least two paragraphs.

3 YOUR TURN

Your own words

Suppose a city proposes planting trees only in its largest park, while residents request shade along an exposed route to a clinic. Write one paragraph of 80 to 100 words evaluating both proposals through two central ideas in the passage. Trace how those ideas develop from paragraph 1 through paragraph 3, using at least two details from different paragraphs.

ANSWER KEY

Where Shade Falls

HIGH SCHOOL · RI.11-12.2

PART 1 · READ AND MARK

Underline details about how trees cool streets, circle details about who can use that cooling, and number one sentence in each paragraph that shows how the ideas connect or change. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What two central ideas emerge across the first two paragraphs? Give one detail that helps develop each idea.	**Trees cool streets by shading pavement and releasing water that evaporates. People do not have equal access to that cooling because tree locations reflect street conditions and past land-use decisions.**
2	How does the comparison of the two neighborhoods in paragraph 2 complicate the point about cooling in paragraph 1?	**Paragraph 1 explains that trees can cool a street, but paragraph 2 shows that a neighborhood's tree total does not reveal whether shade falls where people walk or wait for buses.**
3	How does paragraph 3 develop both central ideas beyond what the first two paragraphs establish?	**It adds that cooling requires time and tree care, while access requires planning for exposed routes. A planting plan must account for both where shade is needed and whether trees can survive there.**
4	Why would counting planted trees alone give an incomplete account of the problem? Connect evidence from at least two paragraphs.	**Paragraph 2 shows that tree counts can hide whether shade reaches public walking routes. Paragraph 3 adds that newly planted trees provide little immediate shade and may fail without care.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The park proposal could add cooling, since paragraph 1 explains that leaves block sunlight and release water that cools nearby air. But paragraph 2 shows why a count of trees does not reveal who can use their shade: trees beside a route to the clinic would help people making that trip, while park trees might not. Paragraph 3 adds a longer-term test. Trees along the route need room for roots and money for care, or their shade may never develop. Together, these ideas favor planting along the route if the city can maintain those trees.

Accept different evaluations of the proposals if the response traces both cooling and access across the passage and supports its conclusion with accurate details.