Shade Evidence Trail

Use different sources to build a focused answer.

9.T.RA.2 "Curating Sources & Evidence: Reference parts of texts to address a specific topic or question and explore various sources of information to make connections across a broad range of topics."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline one detail in each paragraph that could help answer, "Why should a city study tree shade before planting?" Number the details 1 through 3, and circle each source name.

Planning for Cooler Streets

1 On a summer afternoon, shaded sidewalks can feel far cooler than nearby pavement. To study this effect, researchers compare air temperature, surface temperature, and tree cover. A 2021 report from the U.S. Forest Service explains that tree shade can lower surface temperatures by blocking sunlight. The report is useful for a question about heat because it describes a direct physical effect. It does not, however, show which neighborhoods have the fewest trees.

2 To identify places with limited shade, a city planner might use a neighborhood tree inventory. In Portland, Oregon, the nonprofit Friends of Trees and city partners have mapped street trees and organized planting efforts. A map can reveal where trees are located, but it cannot by itself explain why coverage differs. For that question, the planner could consult census data about income, housing, and age, then compare patterns carefully without assuming that one factor caused another.

3 Health records offer a third kind of evidence. The Centers for Disease Control and Prevention reports that extreme heat can cause heat exhaustion and heat stroke, especially when people cannot cool down. These records help explain why shade matters to public health, yet they do not measure a tree's cooling effect. A strong research answer joins sources for different purposes: a science report for mechanism, a tree map for location, and health information for consequences.

2 ANSWER WITH EVIDENCE

Use the passage

1. Which source gives evidence that shade can cool surfaces, and what detail does it provide?

2. What can a neighborhood tree map reveal, and what can it not explain by itself?

3. What information should a planner consult to explore why tree coverage differs, and what caution should the planner use?

4. How do the science report, tree map, and health information serve different purposes in a research answer?

3 YOUR TURN

Your own words

Choose a different community question about trees, such as where planting should happen first. Write exactly two sentences that name two passage sources or source types, cite one relevant detail from each, and explain how they work together.

ANSWER KEY

Shade Evidence Trail

GRADE 9 · 9.T.RA.2

PART 1 · READ AND MARK

Underline one detail in each paragraph that could help answer, "Why should a city study tree shade before planting?" Number the details 1 through 3, and circle each source name. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Which source gives evidence that shade can cool surfaces, and what detail does it provide?	**The 2021 U.S. Forest Service report. It says tree shade can lower surface temperatures by blocking sunlight.**
2	What can a neighborhood tree map reveal, and what can it not explain by itself?	**It can reveal where trees are located. It cannot explain why tree coverage differs.**
3	What information should a planner consult to explore why tree coverage differs, and what caution should the planner use?	**The planner should consult census data about income, housing, and age. The planner should not assume one factor caused another.**
4	How do the science report, tree map, and health information serve different purposes in a research answer?	**The science report explains the cooling mechanism, the tree map shows location, and health information shows consequences.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

To decide where planting should happen first, I would use a neighborhood tree inventory to find areas with few street trees. I would pair it with CDC health information that extreme heat can cause heat exhaustion and heat stroke to identify places where limited shade may create health risks.

Accept two sentences that address a community tree question and use two relevant sources or source types from the passage. Each sentence should include an accurate detail and show how the evidence supports the student's question.