

Evidence for Shade

Combine sources into a supported answer, with limits.

10.T.C.2.d "Synthesize information from a variety of credible sources used to research the answers to questions on academic and individual topics of interest. (C)"

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Read the three editorial source summaries. Underline one useful finding in each and circle its limit. Draw an arrow from the Knight review named in source A to source B.

Research question: What should a school consider before adding trees for heat relief?

- ① Source A: U.S. EPA, Benefits of Trees and Vegetation (updated May 15, 2026). Editorial summary: Trees can cool their surroundings through shade and evapotranspiration, which uses heat to evaporate water. EPA cites Knight and colleagues' 2021 review among its evidence. This overview explains a mechanism and links to research; it does not test a particular school's planting plan. Read: <https://www.epa.gov/heatislands/benefits-trees-and-vegetation>
- ② Source B: Teri Knight and colleagues, "How effective is greening of urban areas..." Environmental Evidence 10, article 12 (2021). Editorial summary: This systematic review combined 308 studies. Green areas generally tended to be cooler, but effects varied with vegetation and conditions; treed areas could be warmer at night. The authors call for designs suited to local circumstances. An average across studies is not a promised temperature change at one school. Read: <https://doi.org/10.1186/s13750-021-00226-y>
- ③ Source C: National Weather Service, During a Heat Wave (accessed September 8, 2026). Editorial summary: During extreme heat, NWS advises reducing or rescheduling strenuous outdoor activity to cooler times and minimizing direct sun exposure. This is immediate heat-safety guidance, not a test of tree planting. It adds a different question to the research: what should a school do during hot conditions while it considers changes to its grounds? Read: <https://www.weather.gov/safety/heat-during>

2 ANSWER WITH EVIDENCE _____ Use the passage

- 1** How does source B qualify the cooling explanation in source A? Combine a finding from each in your answer.

- 2** Why should a writer avoid treating A and B as two completely independent confirmations of the same research result?

- 3** What does source C add that A and B cannot settle by themselves? Explain how that changes a school recommendation.

3 YOUR TURN

Your own words

Answer the research question for a school leadership team in 140 to 180 words. Combine evidence from A, B and C into one recommendation, cite the source letters, explain at least two connections between sources, and include a limit plus information the school still needs. Do more than summarize each source separately.

Write a synthesis for school leaders

Build a shared conclusion from the sources. Distinguish the evidence from your proposed local decision.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

PART 1 • READ AND MARK

Read the three editorial source summaries. Underline one useful finding in each and circle its limit. Draw an arrow from the Knight review named in source A to source B. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How does source B qualify the cooling explanation in source A? Combine a finding from each in your answer.	A explains cooling through shade and evapotranspiration. B supports a general cooling tendency but shows that effects vary and can differ at night. Together they support considering trees without promising identical cooling everywhere.
2	Why should a writer avoid treating A and B as two completely independent confirmations of the same research result?	A explicitly cites Knight and colleagues' review, which is source B. They are two publications but share underlying evidence; counting them as unrelated studies would exaggerate the confirmation.
3	What does source C add that A and B cannot settle by themselves? Explain how that changes a school recommendation.	C adds immediate actions during extreme heat, such as changing activity timing. A planting proposal alone does not answer what to do during current hot conditions, so the recommendation should address both immediate practice and longer-term grounds planning.

PART 3 · YOUR TURN (SAMPLE ANSWER)

School leaders should consider trees as part of a heat-response plan while keeping immediate protections in place. EPA's explanation of shade and evapotranspiration (A) helps explain the general cooling tendency reported in Knight and colleagues' review (B). However, the review's variation across conditions means we should not promise a fixed temperature reduction on this campus. A also cites B, so these publications do not represent wholly separate confirmations of that result.

NWS guidance on reducing or rescheduling strenuous activity during extreme heat (C) adds an immediate response that a planting proposal cannot supply by itself. Together, the sources support planning for useful shade while adjusting activities when conditions require it. Before selecting sites, the school should examine where students spend time, the shade already available, and local maintenance needs. Those are questions for local investigation, not findings supplied by these sources. Leaders should request that information before approving a specific design.

Assess whether the student actually combines evidence into an answer, rather than merely listing possible sources or retelling three summaries. Accept different supported recommendations and source relationships. Require all three citations, two explained connections, a limit and a concrete local information need. These are attributed editorial summaries, not invented studies or verbatim extracts; URLs identify the originals.