Evidence for Action

Choose facts that fit a school decision

11-12.W.2.b "Utilizing credible sources, develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each source's name at its first mention, circle both temperature ranges, and number two details you would select for a principal deciding between a cool roof and a shaded waiting area.

Which Evidence Fits the Heat?

1. When a school considers a cool roof, the strongest case is not that white paint looks modern. The U.S. Environmental Protection Agency (EPA) reports that urban areas can be 1 to 7°F warmer than nearby rural areas during the day and 2 to 5°F warmer at night. These ranges establish the scale of the heat island effect, in which buildings and pavement absorb and release heat. For a principal deciding how to protect students, the temperature comparison matters more than an anecdote about one unusually hot afternoon: it describes a recurring problem rather than a single event.

2. But a citywide comparison does not prove that every school needs the same fix. According to the U.S. Department of Energy (DOE), cool roofs reflect more sunlight and absorb less heat than conventional roofs. A roof coating or specially designed roofing material can create that effect. The distinction matters for students in upstairs rooms, where a sun-heated roof can add to the building's cooling demand. DOE also notes a trade-off: in colder climates, a cool roof can raise winter heating costs. An informative proposal should therefore name the building and climate before treating a cool roof as a universal solution.

3. Suppose the school also has a bare, paved pickup area where students wait after dismissal. That setting calls for different evidence. EPA explains that trees and other vegetation cool nearby air through shade and evapotranspiration, the movement of water into the air through evaporation from soil and transpiration from plants. A plan for the pickup area might specify trees positioned to shade the waiting space without blocking accessible paths. The DOE's roof information would be less relevant there than EPA's explanation of shade. Selecting evidence means matching a trustworthy source and a concrete detail to the decision an audience must make.

2 ANSWER WITH EVIDENCE

Use the passage

1. Why are EPA's temperature ranges stronger evidence of a heat problem than an anecdote about one hot afternoon?

2. How does the definition of evapotranspiration help explain why vegetation is relevant to the pickup area?

3. Which DOE detail supports considering a cool roof for upstairs rooms, and which DOE warning limits that recommendation?

4. Why is EPA's explanation of vegetation more relevant than DOE's roof information to a proposal for the pickup area?

3 YOUR TURN

Your own words

A school has hot upstairs classrooms and a sunny walkway to the gym. Write an 85 to 105 word paragraph to the principal recommending which area to address first. Attribute one relevant fact to EPA and one to DOE, explain your choice, and include a concrete action and a reasonable limitation.

Evidence for Action

PART 1 · READ AND MARK

Underline each source's name at its first mention, circle both temperature ranges, and number two details you would select for a principal deciding between a cool roof and a shaded waiting area. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Why are EPA's temperature ranges stronger evidence of a heat problem than an anecdote about one hot afternoon?	**They describe a recurring urban-rural temperature difference rather than one isolated event.**
2	How does the definition of evapotranspiration help explain why vegetation is relevant to the pickup area?	**It explains how water moves into the air from soil and plants, a process that helps vegetation cool nearby air.**
3	Which DOE detail supports considering a cool roof for upstairs rooms, and which DOE warning limits that recommendation?	**Cool roofs reflect more sunlight and absorb less heat than conventional roofs, which can reduce roof-related cooling demand. In colder climates, they can raise winter heating costs.**
4	Why is EPA's explanation of vegetation more relevant than DOE's roof information to a proposal for the pickup area?	**Vegetation can shade and cool the place where students wait; roof information addresses heat absorbed by a building's roof.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Principal, prioritize shade trees along the sunny walkway to the gym. EPA explains that vegetation cools nearby air through shade and evapotranspiration, so trees would address heat where students actually walk. Plant them beside, not on, the accessible path, and place benches in the areas they will eventually shade. DOE says cool roofs reflect more sunlight and absorb less heat than conventional roofs, but a roof project would not shade this walkway. Trees will take time to grow, so check whether temporary shade is needed while they mature. If upstairs rooms remain too hot, consider a cool roof next.

Accept either priority in Part 3 if the paragraph stays within the word limit, accurately attributes both facts, and explains why the selected project fits the chosen area. The limitation should be plausible and connected to the proposal.