

Evidence With Roots

Trace how a model argument uses authoritative evidence for a public audience.

10.W.1.A.iii "Write extended pieces that: Develop the topic through sustained use of the most significant and relevant facts, concrete details, quotations, or other information from multiple authoritative sources appropriate to the audience's knowledge."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline facts attributed to the EPA or U.S. Forest Service and circle the source name in that paragraph. Draw an arrow from a fact to its source if needed. Number explanations that connect evidence to residents' heat exposure, building cooling or the council's spending decisions.

A Cooler City Plan

- ① For city council members considering a summer heat plan, planting and protecting street trees should be a central step. The U.S. Environmental Protection Agency explains that shaded surfaces, such as pavement, may be 20 to 45°F cooler than unshaded materials at peak temperatures. Trees also cool air through evapotranspiration: evaporation from soil and other surfaces combined with water vapor released by plants. This evidence matters to residents walking to bus stops, working outdoors, or waiting in school pickup lines. A heat plan should therefore place trees where people spend time outside, not simply add them to distant parks.
- ② The U.S. Forest Service shows why placement can matter as much as planting. Its research summary on energy-efficient landscapes explains that the greatest cooling savings come from shading the west side of air-conditioned buildings in the hottest climates. In a neighborhood with little canopy, a city could begin along transit corridors, beside apartment buildings, and on school sidewalks. Those locations connect the evidence to people who wait, walk, or live near hot pavement. The plan should also fund watering and pruning during dry months. A total number of seedlings would not tell council members whether trees will survive or cool the routes and buildings that residents use most.

- ③ Together, the two federal sources support a focused policy rather than a symbolic tree campaign. The EPA provides a measurable reason to create shade, while the Forest Service connects careful placement to lower cooling needs. The examples of bus stops, apartment buildings, and school sidewalks make the proposal understandable for council members who must choose where public money goes. They also keep the argument centered on daily exposure to heat. By including maintenance, the writer recognizes that a newly planted tree is not an instant solution. The recommendation remains practical because it links evidence, locations, and a continuing responsibility.

2 ANSWER WITH EVIDENCE Use the passage

- 1 What action does the writer recommend, and who is the intended audience for the recommendation?

- 2 Name one fact from the EPA and one fact from the U.S. Forest Service that support the recommendation.

- 3 Why does the writer mention bus stops, apartment buildings, and school sidewalks instead of only discussing parks?

- 4 How does the detail about watering and pruning strengthen the writer's argument?

3 YOUR TURN

Your own words

Choose a local school or community issue other than street trees. Write a 190-220-word recommendation for a decision-making audience that names at least two authoritative sources, uses at least three relevant concrete facts or details, includes one short quotation, and explains a specific action the audience should take. You may use later school starts with these source notes, or bring two checkable texts for another issue. **Source A: American Academy of Pediatrics, School Start Times for Adolescents (2014).** It recommends "8:30 a.m. or later" for middle and high schools and explains that adolescent sleep cycles shift later during puberty. **Source B: CDC, Short Sleep Duration (2018 report, 2015 national survey).** In that survey, 72.7 percent of high school students reported short sleep, defined as less than eight hours on an average school night. These are national student reports, not a local district rate. Only the words in quotation marks are a direct quotation; the other notes are paraphrases.

1. Select evidence for your audience

Name your audience and recommendation. Select three relevant facts/details and a short quotation from two sources. Explain how the evidence informs the decision. Planning notes do not count toward the 190-220 words.

2. Develop your recommendation

Write 190-220 words using your selected evidence. Explain a specific action for the audience, then revise and edit for accuracy.

[illegible]

PART 1 • READ AND MARK

Underline facts attributed to the EPA or U.S. Forest Service and circle the source name in that paragraph. Draw an arrow from a fact to its source if needed. Number explanations that connect evidence to residents' heat exposure, building cooling or the council's spending decisions. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What action does the writer recommend, and who is the intended audience for the recommendation?	The writer recommends planting and protecting street trees in places people use outdoors. The intended audience is city council members considering a summer heat plan.
2	Name one fact from the EPA and one fact from the U.S. Forest Service that support the recommendation.	The EPA says shaded surfaces may be 20 to 45°F cooler than unshaded materials at peak temperatures. The U.S. Forest Service's research summary identifies shading the west side of air-conditioned buildings in the hottest climates as the placement with the greatest cooling savings.
3	Why does the writer mention bus stops, apartment buildings, and school sidewalks instead of only discussing parks?	These locations show where residents regularly face heat and help council members see where tree placement could directly benefit people.
4	How does the detail about watering and pruning strengthen the writer's argument?	It shows that the plan includes maintenance, so trees can survive and continue cooling the routes and buildings residents use.

PART 3 · YOUR TURN (SAMPLE ANSWER)

To the School Board: Our district should test a later high-school start through a one-year pilot. The American Academy of Pediatrics recommends that middle and high schools begin at "8:30 a.m. or later" because adolescent sleep cycles shift later during puberty. That recommendation gives the board a clear scheduling target, while the biological explanation shows why an early bedtime alone may not solve the problem. A pilot would let our district assess this guidance in its own transportation and community setting.

The Centers for Disease Control and Prevention reported in 2018 that 72.7 percent of high school students in the 2015 national survey reported short sleep. The survey measured students sleeping less than eight hours on an average school night. This is evidence of widespread insufficient sleep, not a count of schools starting early, and it does not establish our district's rate. Together, these sources justify investigation without guaranteeing a particular result. Begin with one high school, consult families and transportation staff before setting routes, and publish the pilot plan. Track attendance, first-period tardiness and student sleep reports alongside transportation costs. Then compare these measures with the school's earlier records and explain the limits of that comparison. The board should review the findings publicly before extending the schedule.

Accept accurately explained EPA and Forest Service evidence. Surface cooling figures do not describe air-temperature reductions or guarantee a local result. The Forest Service finding is about placement and climate, not a universal 30 percent saving. The sample's three concrete sourced details are the AAP 8:30 recommendation, CDC 2015 short-sleep prevalence of 72.7 percent and the survey's less-than-eight-hour school-night definition. The AAP quotation is short and attributed. The CDC report was published in 2018; its survey was in 2015. Require 190-220 words, two authoritative sources, at least three relevant facts/details, a short quotation and specific action. Sources:

https://19january2021snapshot.epa.gov/heatislands/using-trees-and-vegetation-reduce-heat-islands_.html ; <https://research.fs.usda.gov/treesearch/61735> ;

<https://www.cdc.gov/mmwr/volumes/67/wr/mm6703a1.htm> ;

<https://publications.aap.org/pediatrics/article/134/3/642/74175/School-Start-Times-for-Adolescents> .