

Evidence Under Trees

Track how a researcher narrows a question and combines sources.

CCSS.ELA-Literacy.WHST.9-10.7 "Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject..."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline the model researcher's changes in question and answer. Circle the limits he keeps in view. Malik and Eastside are fictional; Sources A-B are real publications to investigate.

Investigating Hot Bus Stops

- ① Malik's first question, 'Why is my city hotter?', is too broad for a short project. He focuses on how tree cover might matter to heat near bus stops. Eastside is a fictional neighborhood, and he has no verified local map or temperature log. He therefore begins with published research and asks what it can explain, what it cannot establish locally, and what evidence could fill the gap. This is an inquiry into evidence, not a claim that a particular Eastside stop has already been measured.
- ② Malik reads a research paper and an explanatory overview, then organizes notes under question, evidence and limit. An author's own study and an overview of other research contribute different kinds of information. He records where an idea came from before paraphrasing it. His first answer connects the sources and marks uncertainty. He does not copy a source summary as if it were his own analysis, and he does not assume that a familiar institution makes every claim applicable to his question.
- ③ A short inquiry can become a longer one when a useful gap appears. Malik revises his question, searches for additional evidence, and actually reads another source before revising his answer. He compares the new evidence with what he wrote first, explaining any agreement, changed conclusion or remaining limit. His completed product includes both drafts, source notes and citations. A sentence saying which source he would consult later cannot substitute for the reading and synthesis that let him answer the revised question.

Source A

Ziter, Carly D., et al. "Scale-dependent interactions between tree canopy cover and impervious surfaces reduce daytime urban heat during summer." PNAS, 2019. Early-online version, pp. 1-6. DOI: 10.1073/pnas.1817561116.

https://turnerlab.ibio.wisc.edu/wp-content/uploads/sites/43/2021/12/Ziter_et alPNAS2019_UrbanHeat-1.pdf

Editorial summary: Measured summer air temperatures varied with tree canopy and paved cover.

Limits to examine: Read the abstract and Methods on page 5. Examine the setting, sampling and limits before transferring findings elsewhere.

Source B

"Benefits of Trees and Vegetation." U.S. Environmental Protection Agency, updated 15 May 2026.

<https://www.epa.gov/heatislands/benefits-trees-and-vegetation>

Editorial summary: This overview explains cooling through shade and evapotranspiration, or water evaporation associated with plants and soil. It summarizes research about additional benefits and provides references to supporting studies.

Limits to examine: Read the heat-reduction section and references. An overview can explain mechanisms and lead to studies; it does not measure any particular bus stop or guarantee the same result everywhere.

2 ANSWER WITH EVIDENCE Use the passage and sources

1 How does Malik make the first question manageable without pretending to have local measurements?

2 What three headings organize Malik's first notes, and why does he record where ideas came from?

3 How do an original study and an overview have different research roles?

4 What makes the later stage actual extended research rather than a future-work plan?

3 YOUR TURN _____ Your own words

Supplies: internet, a teacher-approved search tool or repository and a document tool. Allow three sessions across several days. Write full notes and drafts in your document; these lines record progress. This is a source-based inquiry, with no required field measurements.

Investigate a question you generate about trees and heat near bus stops. Complete a short two-source answer, extend the inquiry with further reading, then submit a revised explanation, source notes and both drafts.

1. Read and answer a focused question

Write your own question before reading. Open A and read its abstract and Methods; read B's heat-reduction section and references. In your source log record each source's main idea, one relevant piece of evidence, a limit and complete citation details. Write two connected paragraphs answering your question with both sources. Mark what remains uncertain and save this first draft.

Record your initial question and an uncertainty in your completed first answer.

2. Extend the inquiry

Narrow or broaden the question in response to that uncertainty. On a later session, search for and read a third credible source that helps answer the revised question. Record search terms, author or organization, title, date, URL and access date. Explain why it is relevant and reliable. Read more if it does not address the gap; a source name or search-result snippet alone is insufficient.

Record the revised question and the title of the new source you read.

3. Connect the evidence and revise

Add the new source to your log. Compare its evidence with A and B, explaining an agreement, difference or limit. Write a revised three-paragraph explanation: your question and answer; evidence connected across all three sources; and a conclusion explaining what changed from the first draft and what remains unknown. Distinguish a general finding from a local claim. Cite the actual evidence behind your reasoning.

Record one change to your answer and the source evidence that caused it.

4. Check and submit the finished work

Use MLA consistently: cite borrowed ideas at the point of use and provide an alphabetized Works Cited list with author (if given), title, container, date and URL or DOI. Add page numbers only for the version actually read. Verify paraphrases and quotations against the originals. Follow class rules for technology and AI; disclose substantive allowed help or accurately state 'none'. Submit the finished report, source log, earlier draft and these records.

Record your final title, one citation check and your actual AI-use statement.

PART 1 • READ AND MARK

Underline the model researcher's changes in question and answer. Circle the limits he keeps in view. Malik and Eastside are fictional; Sources A-B are real publications to investigate. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How does Malik make the first question manageable without pretending to have local measurements?	He focuses on tree cover and bus-stop heat using published evidence, while stating that Eastside is fictional and local measurements are unavailable.
2	What three headings organize Malik's first notes, and why does he record where ideas came from?	Question, evidence and limit organize the notes. Recording sources supports accurate paraphrasing, checking and citation.
3	How do an original study and an overview have different research roles?	An original study reports the authors' own investigation; an overview explains or synthesizes research by others. Both need evaluation for the question being asked.
4	What makes the later stage actual extended research rather than a future-work plan?	Malik changes the question, retrieves and reads another source, compares the evidence and revises his answer, keeping both drafts and source notes.

PART 3 · YOUR TURN (SAMPLE ANSWER)

Illustrative reasoning record: 'I narrowed my question after the first draft. My later source answered part of the gap but used different conditions, so I changed an absolute statement to a qualified explanation.' A strong student supplies the actual question, source, evidence and revised wording; this generic record is not a finished response.

For A's Methods in the linked version, an in-text citation can be (Ziter et al. 5). For B, whose Works Cited entry begins with its title: ("Benefits"). Do not invent a page number for the webpage.

Assess actual read sources, notes, changed questions and completed reports, not a proposed investigation. Require evidence to support the answer and limits, with sources connected in the writer's reasoning. Do not accept invented bus-stop measurements or a generic future plan. Source A is an early-online PDF numbered 1-6; use those locators when citing that version. Source-card metadata and URLs provide a starting point for Works Cited; students must check and format the versions they actually consult. Arrange real source access if needed. Require a completed two-source answer followed by actual additional reading and a three-source revised explanation. Accept different student-generated questions and conclusions if the sources support them. Check that citations accompany paraphrases, not only direct quotations.