

# Evidence Changes Course

Trace how a researcher tests sources and refines an inquiry.

ELA.12.C.4 "Researching"

NAME \_\_\_\_\_ DATE \_\_\_\_\_

## 1 READ AND MARK \_\_\_\_\_ Read it twice

**YOUR JOB** Underline each source Maya uses, circle details that show why a source is reliable or limited, and number the moments when her research question changes or becomes more specific.

### Shade at the Bus Stop

- ① When senior Maya Ortiz investigated whether more shade could make her town's bus stops safer in summer, she began with a focused question: How do trees and shade structures affect heat exposure for people waiting for buses in Riverton? She did not treat every online result equally. A city transportation report supplied ridership and stop locations, while National Weather Service records provided local temperature data. Maya also found a university study describing how shade lowers radiant heat. Because the study explained its methods and cited data, it was more useful than an unsigned blog post claiming that "all shade solves heat stress."
- ② At first, Maya planned to recommend planting trees at every stop. Her evidence changed the plan. The transportation report showed that several heavily used stops stood beside narrow sidewalks, where large root systems could create access problems. To investigate alternatives, she revised her inquiry: Which shade options reduce heat exposure at high-ridership stops without blocking sidewalks? She located the city's sidewalk-accessibility guidelines and a peer-reviewed engineering article on solar-panel canopies. The article was relevant because it measured surface temperatures beneath canopies, but Maya noted that its sites were in Phoenix, not Riverton. She would need local conditions before predicting identical results.
- ③ Maya's final proposal did not announce that one solution fit every stop. She combined the city's ridership map, temperature records, accessibility guidelines, and the engineering study. For wide, busy stops with little existing cover, she proposed piloting solar canopies and measuring air and surface temperatures during July. For stops near parks, she proposed evaluating tree planting with an arborist and disability-access staff. She also planned to survey riders about where they feel heat most intensely. By separating measured findings from predictions, Maya could explain what the evidence supported and what the pilot still needed to test.

**2 ANSWER WITH EVIDENCE** \_\_\_\_\_ Use the passage

**1** State Maya's initial research question and her revised research question. What evidence caused her to revise it?

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**2** Which source would best support a claim about local bus ridership and stop locations? Explain why it fits that claim.

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**3** Why did Maya judge the university study to be more useful than the unsigned blog post? Give two details from the passage.

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**4** What limitation did Maya identify in the engineering article, and what did she need before applying its findings to Riverton?

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**3 YOUR TURN** \_\_\_\_\_ Your own words

Choose a school or community issue you could research. Write a focused research question, name three sources you would use and explain why each is reliable or relevant, then state one finding that could cause you to revise your question.

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**PART 1 • READ AND MARK**

Underline each source Maya uses, circle details that show why a source is reliable or limited, and number the moments when her research question changes or becomes more specific. Accept any marking that follows this job and points at the right text.

**PART 2 • ANSWERS**

| # | QUESTION                                                                                                                      | ANSWER                                                                                                                                                                                                                                                                                                                                                     |
|---|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | State Maya's initial research question and her revised research question. What evidence caused her to revise it?              | <b>Initial: How do trees and shade structures affect heat exposure for people waiting for buses in Riverton?</b><br><b>Revised: Which shade options reduce heat exposure at high-ridership stops without blocking sidewalks? The transportation report showed that some busy stops had narrow sidewalks where tree roots could create access problems.</b> |
| 2 | Which source would best support a claim about local bus ridership and stop locations? Explain why it fits that claim.         | <b>The city transportation report, because it supplied local ridership data and stop locations.</b>                                                                                                                                                                                                                                                        |
| 3 | Why did Maya judge the university study to be more useful than the unsigned blog post? Give two details from the passage.     | <b>The university study explained its methods and cited data. The blog post was unsigned and made an unsupported absolute claim.</b>                                                                                                                                                                                                                       |
| 4 | What limitation did Maya identify in the engineering article, and what did she need before applying its findings to Riverton? | <b>The article studied sites in Phoenix, not Riverton. Maya needed local conditions or local evidence before predicting the same results in Riverton.</b>                                                                                                                                                                                                  |

**PART 3 • YOUR TURN (SAMPLE ANSWER)**

Initial question: Which two school hallways should receive bottle-filling stations to reduce disposable-bottle waste? I would compare a two-week waste audit using a published counting protocol, the school's maintenance and plumbing records, and peer-reviewed studies of refill-station use. The audit supplies local behavior, the records show feasible sites, and the studies provide research methods. If plumbing capacity rules out the busiest hallways, I would revise the question to ask which feasible locations would serve the most students.

Accept equivalent wording for the two research questions and explanations that correctly connect source quality, relevance, and limitations to the passage. For Part 3, accept varied issues and sources when the response includes a focused inquiry, three justified sources, and a plausible reason to refine the inquiry.