

Question Lens

Track how a research question changes as evidence and purpose change.

11.R.1.A “Formulate and revise questions about a research topic broadening or narrowing the inquiry as necessary.”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline the four research questions in the passage. Circle the words that narrow or broaden each question’s scope, then number the questions 1 through 4 in the order Maya develops them.

Following the Heat Question

- ① At first, Maya wanted to research whether cities should plant more trees. The question mattered, but it stretched across budgets, health, wildlife, and climate. During a library search, she found maps showing that summer temperatures can differ sharply between neighborhoods. She revised her question to ask, “How does tree canopy affect afternoon surface temperatures in three neighborhoods of Phoenix?” This version named one city, one measurable condition, a time of day, and a manageable comparison. It also guided her toward city canopy maps, satellite temperature data, and local planning reports rather than every article about urban trees.
- ② After reading studies, Maya noticed that neighborhoods with more canopy often had cooler surfaces. However, the studies did not prove that trees alone caused the difference. Pavement, building shade, irrigation, and the timing of satellite images could also matter. To investigate causes, Maya would need evidence that compared similar places or tracked change over time. She adjusted her plan again: first, she would describe the temperature pattern; then, she would ask a narrower follow-up question about one possible factor. Her revised question was, “In Phoenix neighborhoods with similar pavement coverage, is greater tree canopy linked to lower afternoon surface temperatures?”
- ③ Later, Maya learned that surface temperature is not the same as the air temperature people experience. A hot sidewalk can raise surface readings, while nearby shade may change a pedestrian’s comfort differently. Because city leaders were considering cooling centers and bus-stop shade, Maya broadened her inquiry. She kept the neighborhood focus but added a second question: “Which heat measures, including surface temperature, air temperature, and reported heat illness, best show where residents face the greatest risk?” The broader question required new sources, such as weather-station records, public-health data, and information about who uses outdoor transit.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Why did Maya replace her first question instead of researching it as written?

2 What four details made Maya's first revision more focused?

3 Why did Maya use the phrase "linked to" in her later question instead of claiming that tree canopy caused lower temperatures?

4 How did Maya's final question broaden her inquiry, and what new kinds of sources did it require?

3 YOUR TURN _____ Your own words

Choose a school or community topic. Write one research question that is too broad, revise it into a narrower question with a place or group, a measurable focus, and a time frame, then broaden it with one added perspective or outcome. After each revision, add a brief phrase explaining why.

PART 1 • READ AND MARK

Underline the four research questions in the passage. Circle the words that narrow or broaden each question's scope, then number the questions 1 through 4 in the order Maya develops them. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Why did Maya replace her first question instead of researching it as written?	It was too broad because it included many issues, such as budgets, health, wildlife, and climate, and it could lead to nearly every article about urban trees.
2	What four details made Maya's first revision more focused?	It named Phoenix, tree canopy, afternoon surface temperatures, and a comparison among three neighborhoods.
3	Why did Maya use the phrase "linked to" in her later question instead of claiming that tree canopy caused lower temperatures?	The studies showed a pattern but did not prove cause, and other factors, including pavement, building shade, irrigation, and image timing, could affect temperatures.
4	How did Maya's final question broaden her inquiry, and what new kinds of sources did it require?	It added air temperature, reported heat illness, and resident risk to surface temperature. It required weather-station records, public-health data, and information about outdoor transit users.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Too broad: How does homework affect students? Narrower: Among juniors at Lincoln High, how many minutes of homework do students report on weeknights in October, and how does that relate to their sleep hours? This limits the group, time, and measures. Broader: How do homework time, sleep hours, and participation in after-school activities relate to juniors' stress in October? This adds activities and stress.

Accept equivalent explanations that accurately distinguish a question that is too broad, narrowed by specific limits, or broadened by additional measures or outcomes. For Part 3, accept varied topics if the response includes all three question stages and a valid reason for each revision.