Question Lens

Track how researchers focus and extend an inquiry.

12.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 broad question, circle the focused revision, and number the details that narrow it. Box the later follow-up question and write B beside it to show how it broadens the inquiry.

Studying Heat in Phoenix

1. Researchers studying extreme heat in Phoenix began with a broad question: How do city surfaces affect summer temperatures? The question could lead to studies of pavement, roofs, parks, and neighborhoods. Early temperature maps showed that shaded blocks were often cooler, but the maps did not show which kinds of shade mattered most. The team needed an inquiry narrow enough to investigate with available time, instruments, and records that summer.

2. They revised it to ask, On residential blocks in Phoenix, how does tree-canopy coverage relate to afternoon air temperature during July? This version identifies a place, a type of shade, a measurement, and a season. It excludes questions about reflective roofs or nighttime heat, not because those topics are unimportant, but because they require different evidence. A focused question can produce data that researchers can compare across selected blocks in Phoenix.

3. After collecting data, the team may find that canopy coverage is linked to cooler afternoons on some blocks but not others. That result could prompt a broader follow-up question: How do tree canopy, building height, and street width together influence afternoon air temperature in Phoenix neighborhoods? The new question adds variables because the first inquiry may not explain all the differences. Revising questions is matching the next question to what evidence can and cannot explain.

2 ANSWER WITH EVIDENCE

Use the passage

1. What broad question began the investigation?

2. Name four details that make the revised question narrower.

3. Why did the team set aside reflective roofs and nighttime heat?

4. What possible result led to a broader follow-up, and which two new variables did it add?

3 YOUR TURN

Your own words

Choose a research topic. Write one broad question, revise it into one narrower question, and write one sentence explaining what you limited.

ANSWER KEY

Question Lens

GRADE 12 · 12.R.1.A

PART 1 · READ AND MARK

Underline the broad question, circle the focused revision, and number the details that narrow it. Box the later follow-up question and write B beside it to show how it broadens the inquiry. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What broad question began the investigation?	**How do city surfaces affect summer temperatures?**
2	Name four details that make the revised question narrower.	**Residential blocks in Phoenix, tree-canopy coverage, afternoon air temperature, and July.**
3	Why did the team set aside reflective roofs and nighttime heat?	**Those topics require different evidence.**
4	What possible result led to a broader follow-up, and which two new variables did it add?	**Canopy coverage might be linked to cooler afternoons on some blocks but not others. It added building height and street width.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Broad question: How do school start times affect high school students? Narrower question: At Lincoln High School, how does moving the first bell from 7:30 to 8:15 affect juniors' first-period attendance during the fall semester? I limited the school, grade, outcome, time period, and change studied.

Accept equivalent questions and details supported by the passage. In Part 3, accept varied topics if the revision clearly adds specific limits and the explanation accurately identifies them.