Sharpen the Question

Move from broad ideas to focused research.

12.T.RA.1.a "Generate questions to guide research, make connections between complex topics, explore creative solutions, narrow focus, and/or refine text creation. (I)"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each research question. Number the details that narrow Maya's final working question, then circle the words that connect different topics.

From Big Idea to Researchable Question

1. When Maya began planning a research project on extreme heat in cities, her first question was, "How does climate change affect urban temperatures?" The question mattered, but it was too broad to direct a useful investigation. She listed related topics: pavement, tree cover, building materials, public health, and neighborhood income. Then she asked, "Which city design choices most reduce dangerous summer heat for residents who lack air conditioning?" This question connected environmental science with housing policy and health equity. It also named a population and a result she could investigate with local data.

2. To refine her focus, Maya searched for maps of surface temperature, tree canopy, and household access to air conditioning. She noticed that satellite maps can show hotter blocks, but they cannot by themselves explain why people face greater risk. That limitation produced another question: "How do tree canopy and housing conditions combine to shape heat exposure in two adjacent neighborhoods?" Rather than treating heat as only a weather issue, Maya could compare environmental patterns with social conditions. She planned to use city tree inventories, census data, tenant interviews, and public-health reports. Each source could answer part of the question.

3. Before gathering every available source, Maya set boundaries. She chose one city, summer heat waves from 2018 through 2024, and two neighboring census tracts. She defined "housing conditions" as home cooling equipment, rent burden, and building age. These choices did not prove a conclusion. They made the project manageable and showed what evidence she still needed. Her working question became, "During heat waves from 2018 through 2024, how did tree canopy and housing conditions relate to heat exposure in two adjacent census tracts in Riverton?" She could revise it again if her evidence revealed a clearer, narrower path.

2 ANSWER WITH EVIDENCE

Use the passage

1. Why was Maya's first question too broad for a useful investigation? Identify two ways her later questions give the project more focus.

2. What complex topics does Maya connect when she moves beyond treating heat as only a weather issue?

3. What can satellite maps show, what can they not explain by themselves, and what question does that limitation lead Maya to ask?

4. Which boundaries does Maya set for her final working question, and how do those boundaries help her research?

3 YOUR TURN

Your own words

Choose a local or national issue that connects two complex topics. Write one broad starting question and two refined research questions: one that connects the topics and one that narrows the study by naming a place or group, a time period, and evidence you would seek.

ANSWER KEY

Sharpen the Question

GRADE 12 · 12.T.RA.1.a

PART 1 · READ AND MARK

Underline each research question. Number the details that narrow Maya's final working question, then circle the words that connect different topics. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Why was Maya's first question too broad for a useful investigation? Identify two ways her later questions give the project more focus.	**The first question covers all urban temperatures and climate change without naming a place, group, factor, or time frame. Later questions focus on residents without air conditioning, tree canopy and housing conditions, two adjacent neighborhoods or census tracts, and heat waves from 2018 through 2024.**
2	What complex topics does Maya connect when she moves beyond treating heat as only a weather issue?	**She connects environmental patterns, especially tree canopy and surface temperature, with social conditions, including housing, access to cooling, rent burden, and health equity.**
3	What can satellite maps show, what can they not explain by themselves, and what question does that limitation lead Maya to ask?	**Satellite maps can show hotter blocks, but they cannot by themselves explain why people face greater risk. This leads to the question, "How do tree canopy and housing conditions combine to shape heat exposure in two adjacent neighborhoods?"**
4	Which boundaries does Maya set for her final working question, and how do those boundaries help her research?	**She limits the study to one city, summer heat waves from 2018 through 2024, and two neighboring census tracts. She also defines housing conditions as cooling equipment, rent burden, and building age. These limits make the project manageable and identify the evidence she needs.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Broad starting question: How does sea-level rise affect coastal communities? Connection question: How do coastal erosion and flood-insurance costs together affect whether renters and homeowners can remain in Norfolk, Virginia? Narrowed question: From 2020 through 2025, how did recurrent tidal flooding, flood-insurance costs, and rental vacancy rates relate in Norfolk's Ghent neighborhood, using city flood reports, insurance data, and housing listings?

Accept equivalent explanations that accurately identify Maya's narrowing choices and connections between environmental and social factors. For the open task, accept varied issues if the student provides all three questions and the final question includes a defined focus, time period, and possible evidence.