

Question Paths

Trace how researchers move from a broad issue to a focused inquiry.

9.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 Circle every research question in the passage. Underline words that make a question more focused, such as a place, time, group, evidence source, or practical limit.

Cooling the Bus Stop

- ① During a summer heat wave, a ninth-grade research team noticed that bus stops near their school had little shade. They began with a broad question: How does extreme heat affect people who wait for public buses? The question could lead to many sources, including weather records, transit maps, and public-health reports. As the team read, they learned that pavement and buildings can absorb and release heat, making some city areas warmer than nearby parks. They also found that heat can increase the risk of dehydration and heat illness, especially for people who must wait outdoors. Their first question connected environmental design with community health.
- ② To make the project manageable, the team narrowed its focus. Instead of studying every bus stop in the city, members chose six stops within one mile of school and examined afternoon conditions during August. They asked, Which features at these stops are linked to lower surface temperatures and more comfortable waiting areas? This revised question named a place, a time, and observable features such as trees, shelters, benches, and pavement. It also suggested useful evidence: temperature measurements, photographs, rider interviews, and city planning documents. The team understood that narrowing a question does not make it less important. It makes the evidence they collect more relevant to a clear purpose.
- ③ Next, the team used questions to explore solutions rather than jump to a favorite answer. One member asked, How might shade structures, tree planting, and reflective pavement work together at the six stops? That question invited comparison because each option has different costs, maintenance needs, and effects. Another member asked, Whose experiences should guide the proposal? The group decided to seek comments from riders, drivers, nearby residents, and city staff. Before drafting a report, they refined their plan again: What combination of improvements could reduce afternoon heat while remaining practical for the transit agency? The final question gave their writing a focused claim to investigate rather than a conclusion.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 How does the team's first question connect environmental design and community health?

2 Name two details that narrow the team's study from a citywide topic to a manageable investigation.

3 Why would rider interviews and city planning documents both be useful evidence for this project?

4 Which question explores creative solutions, and what three possible improvements does it compare?

3 YOUR TURN _____ Your own words

Choose a school or community problem you could research. Write exactly three research questions: one broad question that connects two topics, one narrowed question with a place, group, or time, and one question that explores at least two possible solutions. Then write one sentence naming two kinds of evidence you would collect.

PART 1 • READ AND MARK

Circle every research question in the passage. Underline words that make a question more focused, such as a place, time, group, evidence source, or practical limit. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How does the team's first question connect environmental design and community health?	It examines how heat at bus stops, affected by features such as pavement and shade, can affect the health of people waiting outdoors.
2	Name two details that narrow the team's study from a citywide topic to a manageable investigation.	The team chose six bus stops within one mile of school and studied afternoon conditions during August.
3	Why would rider interviews and city planning documents both be useful evidence for this project?	Rider interviews can show how people experience the stops, while city planning documents can provide information about transit plans and practical limits.
4	Which question explores creative solutions, and what three possible improvements does it compare?	The question about how improvements might work together explores solutions. It compares shade structures, tree planting, and reflective pavement.

PART 3 • YOUR TURN (SAMPLE ANSWER)

How does bright outdoor lighting near Riverside High affect students' sleep and neighborhood safety? During the hour after evening activities in the school parking lot, how do light levels and fixture placement affect visibility for students walking to nearby bus stops? How might shielded fixtures and motion sensors improve visibility while reducing unwanted light in nearby homes? I would use light measurements and interviews with students and neighbors.

Accept varied topics and wording when all three questions have the required purposes. The narrowed question should include a concrete limiting detail, and the solution question should remain open rather than assume one answer.