

Shade Search

Build research questions and evaluate evidence for a focused analysis.

9.T.RA.1 "Research & Inquiry: Conduct research, generating questions to guide investigations of complex topics of interest and using credible sources to support analyses."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each guiding research question. Circle each source or evidence type, then number details that show why it is credible, limited, or useful.

Investigating Hot Bus Stops

- ① On summer afternoons, some city blocks stay much hotter than nearby parks. Maya noticed that the bus stop outside her apartment had little shade, while a stop near a library had trees and a covered bench. She wanted to investigate whether added shade could reduce heat exposure for people waiting for buses. Instead of searching only "hot bus stops," Maya wrote guiding questions: How much hotter are shaded and unshaded stops? Which materials lower surface temperatures? Who uses the stops most often during the hottest hours? These questions could lead her to measurements, city records, and community experiences.
- ② To compare temperatures, Maya could use data collected by a local university's climate research team, because the team explains its methods, dates, instruments, and locations. She could also consult the National Weather Service for official heat information and the city's transportation department for stop locations and ridership reports. A social media post saying that one stop "feels like an oven" might suggest a place to examine, but it would not prove a temperature pattern. Maya would check when the post was made, whether it names a location, and whether other evidence supports it. Credible sources help her explain not only what she found, but how she knows.
- ③ After gathering information, Maya would analyze it rather than list facts. She might compare temperatures at several shaded and unshaded stops at the same time of day, then look for patterns. If unshaded stops were usually hotter, she could cautiously conclude that shade may reduce heat exposure at the sites studied. She would also note limits: a small sample, changing cloud cover, or differences in pavement could affect results. Her final analysis would cite each source next to the claim it supports. That practice lets readers distinguish measured evidence from observations, opinions, and unanswered questions.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Which of Maya's guiding questions would require her to compare numerical measurements?

2 Name two details the university climate research team provides that make its data more credible.

3 Why can the social media post help Maya begin her investigation but not prove a temperature pattern?

4 What should Maya place next to each claim in her final analysis, and what does this help readers distinguish?

3 YOUR TURN _____ Your own words

Choose a school or community issue you want to investigate. Write three guiding questions, then name two credible sources and explain in a phrase how each source could support your analysis.

PART 1 • READ AND MARK

Underline each guiding research question. Circle each source or evidence type, then number details that show why it is credible, limited, or useful. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Which of Maya's guiding questions would require her to compare numerical measurements?	How much hotter are shaded and unshaded stops?
2	Name two details the university climate research team provides that make its data more credible.	It explains its methods and dates. It also provides its instruments and locations.
3	Why can the social media post help Maya begin her investigation but not prove a temperature pattern?	It may suggest a place to examine, but it is an observation, not measured evidence of a pattern.
4	What should Maya place next to each claim in her final analysis, and what does this help readers distinguish?	She should cite the source that supports each claim. This helps readers distinguish measured evidence from observations, opinions, and unanswered questions.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Topic: whether our school can reduce cafeteria food waste. My questions are: How much unopened food is thrown away each week? Which foods are discarded most often? How do lunch schedules and serving sizes affect waste? I would use school nutrition office records to compare purchases with leftovers, and county solid-waste department reports to evaluate composting options.

Accept guiding questions that are focused, researchable, and likely to lead to evidence. Sources should be credible and the student should connect each source to a specific use in the analysis.