Question Under Construction

Use available evidence to shape a research question

10.6.W.1 "Students will formulate and refine a viable research question."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline two limits on Leena's investigation, circle two sources she can use, and number her three draft questions in the order they appear. Use your marks to decide which questions she can answer with the evidence available.

The Cartons at the Counter

1 At Cedar High, student reporter Leena notices unopened milk cartons on the tray-return counter after lunch. She wonders, "Why does our school waste so much food?" For a class project, she has two weeks and can visit the cafeteria after the final lunch period on ten school days. The manager will let her count unopened cartons at the counter, but she cannot inspect trash cans or interview students. Leena also cannot track food taken home or thrown away in classrooms. Her interest began with a visible pile of cartons, but her first question reaches far beyond what she can observe.

2 Leena plans to record one total of unopened cartons each day, after all lunch periods have ended. The cafeteria also posts its lunch menu each morning, and the manager can tell her which milk choices were offered that day. Neither source shows how many students bought milk or why any carton came back unopened. Leena writes another possible question: "Which lunch menu causes the most milk waste?" She could place her daily counts beside the menus, but ten days of observations would not show whether a menu caused a change. Other events, such as an assembly, might affect lunch that day.

3 A classmate suggests comparing returns from the first, second, and third lunch periods. Leena cannot do that with the single total she records after lunch. She tries one more draft: "Do careless students discard milk because they dislike healthy food?" The words suggest motives she cannot measure, and a returned carton does not reveal who left it there. Still, her notes give her a starting point: daily counts, posted menus, and a fixed period of ten school days. She wants a question precise enough to investigate without treating a count as proof of a student's feelings or a menu's effect.

2 ANSWER WITH EVIDENCE

Use the passage

1. Rewrite Leena's first question so it asks about one thing she can count within her project period.

2. Revise Leena's question about lunch menus so it uses both the posted menus and her counts without claiming that menus cause waste.

3. A classmate asks, “Which lunch period returns the most unopened cartons?” Change the question to fit the totals Leena can record.

4. Revise Leena's third draft to remove assumptions about students and focus on evidence she can collect.

3 YOUR TURN

Your own words

Choose a school issue other than cafeteria waste. Write an initial question that is too broad or assumes an answer, then refine it into a focused question with a time frame and name evidence you could realistically collect.

ANSWER KEY

Question Under Construction

GRADE 10 · 10.6.W.1

PART 1 · READ AND MARK

Underline two limits on Leena's investigation, circle two sources she can use, and number her three draft questions in the order they appear. Use your marks to decide which questions she can answer with the evidence available. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Rewrite Leena's first question so it asks about one thing she can count within her project period.	**How many unopened milk cartons are returned to the counter on each of ten school days?**
2	Revise Leena's question about lunch menus so it uses both the posted menus and her counts without claiming that menus cause waste.	**How do daily counts of unopened milk cartons returned vary across the posted lunch menus during the ten school days?**
3	A classmate asks, "Which lunch period returns the most unopened cartons?" Change the question to fit the totals Leena can record.	**Which of the ten school days has the highest total of unopened milk cartons returned?**
4	Revise Leena's third draft to remove assumptions about students and focus on evidence she can collect.	**How does the number of unopened milk cartons returned change over ten school days?**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Initial question: Why is the school library always crowded? Refined question: How many students enter the school library during lunch on each of five school days? Evidence: With permission, I could count students entering during lunch each day.

Accept varied questions that match Leena's access to daily totals and, when relevant, posted menus. Revised questions should avoid unsupported claims about causes or students' motives.