Market Day Evidence

Use observations to explain how human actions affect Earth.

E.4.9C.3 "Construct scientific arguments from evidence to support claims that human activities, such as conservation efforts or pollution, affect the land, oceans, and atmosphere of Earth."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline two details about litter on land, circle two details about the creek, and number the two counts of idling vans. These details will help you support claims with evidence.

What Changed at Bayview Market?

1. Every Saturday, people visit Bayview Market beside a creek. After one busy morning, a class counted 26 pieces of litter on the grassy bank. They also spotted three food wrappers floating in the creek. The creek flows into a bay connected to the ocean. Rain can wash litter from the bank into the creek. Sea turtles can mistake floating plastic for food.

2. The next week, market workers placed covered trash bins near the path, and volunteers picked up litter. After the following busy Saturday, the class counted five pieces of litter on the same grassy bank. They found one wrapper in the creek. Both counts were made before any rain. Some visitors also carried reusable bags. The class did not count every piece of trash in the bay.

3. Delivery vans often waited outside the market with their engines running. An idling engine burns fuel and releases gases into the air. On the first Saturday, the class counted nine vans idling at noon. Workers then put up signs asking drivers to turn off engines while waiting. On the next Saturday, the class counted two idling vans at noon. The class did not measure the gases in the air.

2 ANSWER WITH EVIDENCE

Use the passage

1. What claim can you make about litter on the grassy bank after the market took action? Support your claim with both litter counts.

2. How might litter left on the bank affect the ocean? Use two details from the passage to explain your claim.

3. Make a claim about how turning off van engines can affect the atmosphere. Use the engine fact and both van counts as evidence.

4. A visitor claims the covered bins alone caused the bank's litter count to drop. Is there enough evidence to say the bins acted alone? Use another detail from the passage.

3 YOUR TURN

Your own words

Propose one new action the market could take to protect the land, ocean, or atmosphere. Make a claim about its effect, and use two facts from the passage to explain why it might help.

ANSWER KEY

Market Day Evidence

GRADE 4 · E.4.9C.3

PART 1 · READ AND MARK

Underline two details about litter on land, circle two details about the creek, and number the two counts of idling vans. These details will help you support claims with evidence. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What claim can you make about litter on the grassy bank after the market took action? Support your claim with both litter counts.	**There was less litter on the bank after the market took action. The class counted 26 pieces before and five pieces afterward.**
2	How might litter left on the bank affect the ocean? Use two details from the passage to explain your claim.	**Rain can wash litter from the bank into the creek, and the creek flows into a bay connected to the ocean. Floating plastic could harm sea turtles that mistake it for food.**
3	Make a claim about how turning off van engines can affect the atmosphere. Use the engine fact and both van counts as evidence.	**Turning off waiting vans could reduce gases released into the air because idling engines burn fuel and release gases. The class counted nine idling vans before the signs and two afterward.**
4	A visitor claims the covered bins alone caused the bank's litter count to drop. Is there enough evidence to say the bins acted alone? Use another detail from the passage.	**No. Volunteers also picked up litter, so the counts cannot show that the bins acted alone.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Food stalls could serve meals in containers that customers return. This might reduce litter because the class found 26 pieces on the grassy bank after the first busy morning. The class also found three wrappers in the creek, which flows toward the ocean. Using fewer throwaway wrappers could leave less trash for rain to wash into the creek.

Accept other reasonable claims supported by the stated observations. Students should describe proposed effects as possibilities, since the class did not measure trash throughout the bay or gases in the air.