Science-Claim, Evidence, Reasoning Practice

Example Taken from REAL Science Challenge; Kent Lui

Directions: Read the following question and experiment. Then make a claim, cite evidence from the reading and graph to support your claim, and provide possible reasoning for what you have seen.

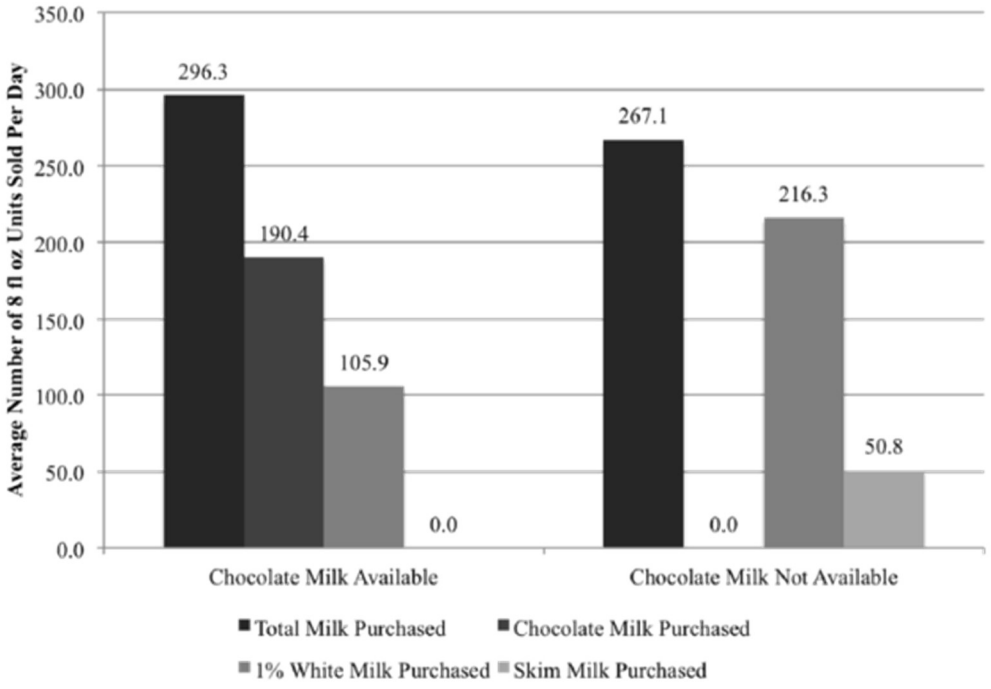
Research Question:

Chocolate milk can have up to two times more sugar than white milk and, as a result, removing chocolate milk from school cafeterias has been debated as a way to reduce childhood obesity. Researchers studied the effect of removing chocolate milk from cafeterias on milk selection and consumption.

Experimental Design:

Researchers recorded how much milk was sold at 11 elementary schools in September and October of 2011, when chocolate milk was available for purchase in the cafeteria (chocolate, 1%, and skim were the only milks available for sale). In September and October of 2012, chocolate milk was no longer available for purchase in the cafeteria, and researchers again recorded how much milk was sold for the same 11 schools.

Results:



Citation: Hanks AS, Just DR, Wansink B (2014) Chocolate Milk Consequences: A Pilot Study Evaluating the Consequences of Banning Chocolate Milk in School Cafeterias. PLoS ONE9(4): e91022. https://doi.org/10.1371/journal.pone.0091022

Make a Claim

A claim is a statement, that answers the research question. Make a claim on the lines below that answers the question:

Should chocolate milk be served in schools?

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List Evidence to Support the Claim

Evidence is found in the experimental design and in the data from the experiment. In this case, the data is found in the graph. List 3 pieces of evidence that would support your claim. To help you come up with some ideas consider these questions:

- How many servings of chocolate milk were purchased?
- When there was no chocolate milk available, what happened to the total number of milk purchases?
- When there was no chocolate milk available, what happened to the number of skim milk purchases? 1% white milk purchases?

1._____

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2._____

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3._____

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Reasoning

Reasoning explains the "Why" of the claim. Take each piece of evidence and explain how it supports the claim and why you saw these results.