

Hot cocoa lab, what happened if you missed it: (And directions for makeup)

Students were presented with 2 brands of cocoa mix. The brands were changed so students wouldn't know the real brands. (see labels and ingredients on the lab sheet)

Students made a hypothesis based on the ingredients. Most thought the Blue Ribbon brand would be better.

They then rated both cocoas as shown on the sheet. Use the sample data to calculate the totals and the average for each side. Then write the conclusion using the averages. Follow directions for the conclusion.

Now, it turns out that there was not really 2 brands of cocoa. They were actually both the same cocoa. The point of the lab was that, in a scientific experiment, the researcher should not be prejudiced or biased in favor of one result before doing the experiment. In this case, the students were influenced in favor of the Blue Ribbon because the ingredients sounded more natural and the Red Label ingredients sounded more like chemicals. (Actually the ingredients are the same, "extracted sucrose" is "pure sugar," "vanillin" is an artificial flavor, etc.) Also, the Blue Ribbon looks like it won first place in a contest.

In a real scientific taste test, tasters would not know the ingredients ahead of time. Because of the way the ingredients were listed, most students thought the Blue Ribbon would be better and most got higher total scores for the Blue Ribbon even though the cocoas were exactly the same.

Copy the following and complete on the LEFT SIDE opposite the cocoa worksheet. (Page 20) (Don't copy anything in parenthesis)

1.

Copy on left opposite cocoa worksheet:	Directions & explanation: don't copy
Q:What variables were controlled in the cocoa tasted test (kept the same for the Red and the Blue so it was a fair test)? A: Same amount of cocoa mix, same amount of water, same temperature	When students mixed the cocoa, they used 1 level teaspoon of both Red and Blue because if one was mixed stronger it would not be fair. The stronger one might taste better (or worse!). Same of amount of water and water temperature. Also students rinsed their mouths with water between tastes so there would not be an after taste.
A Lab conclusion should contain..	(What are the parts of a conclusion?) See the directions for the conclusion on the worksheet
The thing about this experiment is....	Finish the sentence. I'm looking for the main point of the experiement. See above.
The cocoa experiment was not a valid "scientific" experiment because the variables were not controlled. TRUE OR FALSE. EXPLAIN	Even though the cocoas were the same, the variables were controlled to make it a fair test at least in those areas. (see above

2. Draw a picture of a Mug of Cocoa

Inside- Complete this sentence: "The thing about this lab is..... "

3. Reflect on the survey results you discussed in class.