



## Intro to Chemistry Test - Lesson 7 – Causation

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1. When thinking of possible reasons to explain how or why something happened, we think of various possibilities called “hypotheses.” What’s the next step?

- (A) Do an experiment to prove the hypothesis.
- (B) Gather together an experimental group and a control group.
- (C) Decide what each hypothesis predicts.
- (D) Collect relevant data.

2. Why doesn’t finding the prediction predicted by one hypothesis immediately prove that hypothesis, and establish that hypothesis as the reason for the puzzling event?

- (A) Because you haven’t thought of all possible hypotheses.
- (B) Because you haven’t looked for the predictions predicted by other hypotheses.
- (C) Even if you have looked for the predictions predicted by other hypotheses and didn’t find them, it doesn’t mean they weren’t there, only that you didn’t find them.
- (D) All three answers are correct.

3. True or false: When you have successfully ruled out every other possible cause, the one cause you haven’t ruled out must be the reason for the puzzling event.

- (A) True
- (B) False

4. What is the difference between an experimental group and a control group?

- (A) The experimental group is the group you perform the experiment on. The control group is not experimented on.
- (B) The experimental group is allowed to act on its own. The control group’s behavior is controlled.
- (C) The experimental group is identical to the control group except for one important thing.
- (D) The experimental group is larger than the control group in order to establish reliability of the results.

5. When offering a hypothesis to explain some puzzling observation, the reason to do an experiment is to \_\_\_\_\_.

- (A) help the hypothesis explain why the observation occurred
- (B) find what the hypothesis predicts
- (C) prove the hypothesis
- (D) clarify the hypothesis