

Answer 1

### Introduction to Life

This study guide is designed to give you extra practice studying for your writing. Use this to prepare for the APB, AP English, and AP Science classes in which this course is being taken.

**1. Scientific Method:**

A student conducts an experiment to determine if and how salt changes the boiling temperature of water. The results of the experiment are shown below:

Sample	Amount of Salt	Boiling Temperature
Sample 1	1	100°C
Sample 2	1	100°C
Sample 3	1	100°C
Sample 4	2	101°C

- a) What is the independent variable in the experiment? Amount of Salt
- b) What is the dependent variable? Boiling Temp.
- c) Which is the control group in the experiment? Sample 1 (control)
- d) How many experimental groups were used? 3 (Samples 2, 3, & 4)

e) Name 3-5 controlled variables (conditions) that would be important in this experiment.  
Amount of salt, size of water, amount of water, amount of heat

- f) Write a reasonable prediction to the experiment based on the data shown above.  
The more salt that is added to water, the higher the boiling temperature of the water will be.

**2. Properties for Experimental Design:**

1. Must be made of water (like a drink, like a drink, like a drink)
2. Have salt
3. Have heat (Boil or steam)
4. Repeat every (like a drink, like a drink)
5. Applied to experiment (for dinner, egg, sample, etc.)
6. Have a sample (like a drink, like a drink)
7. Sample into time
8. Check to determine (for dinner, egg, sample, etc.)