

SAMPLE LAB REPORT

You watch your mother or father cooking spaghetti by boiling pasta in water. You notice that salt was added to the water before boiling and you wonder why they did this. Your parents tell you that adding salt to the water adds flavor to the spaghetti pasta. You wonder if adding salt has any affect on the boiling temperature of water.

I. QUESTION: How does salt affect the boiling temperature of water?

II. VARIABLES: The independent variable is the different amounts salt that will be added to the water (what is done by the scientist). The dependent variable is the boiling temperature of the water (what is being measured).

III: HYPOTHESIS: If salt is added to water then, the boiling temperature is lowered.

IV. MATERIALS & PROCEDURES:

Table salt Distilled Water 2 Qt Cooking Pot
Measuring cup Measuring spoons Thermometer Stirring spoon

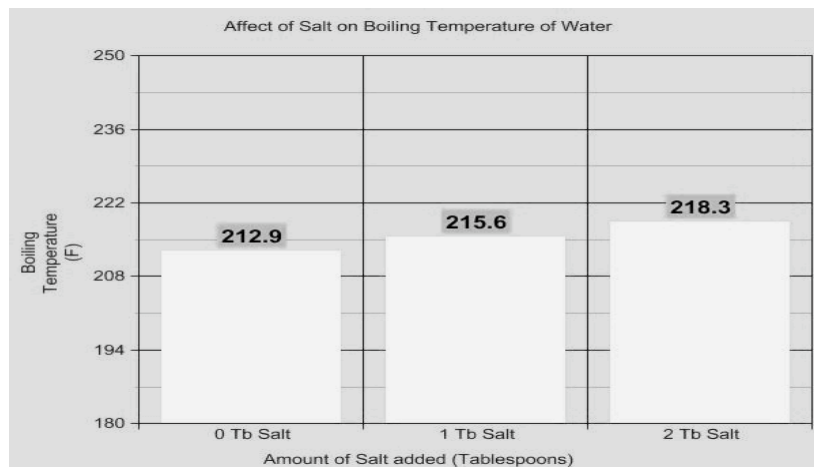
- 1) Add 1 quart of distilled water to cooking pot and place on stove.
- 2) Use the thermometer to record the highest temperature of the boiling water.
- 3) Repeat step one above except add one tablespoon of salt to the water and stir to dissolve.
- 4) Use thermometer to record the highest temperature of the boiling saltwater.
- 5) Repeat step one above except add two tablespoons of salt to the water and stir to dissolve.
- 6) Use thermometer to record the highest temperature of the boiling saltwater.

V. DATA TABLE/GRAPH

Amount of Salt added to water

No salt added	212.9 °F
1 Tablespoon Salt	215.6 °F
2 Tablespoon Salt	218.3 °F

Boiling Temperature in °F



VI: ANALYSIS: My data table and graph clearly shows that adding salt raises the boiling temperature of water. For every tablespoon of salt added, the boiling temperature increased by almost 3 degrees. Therefore, my hypothesis was not supported- the more salt that is added to water, the higher the boiling temperature. This experiment used regular table salt and it would be interesting to repeat this experiment with sea salt to see if the type of salt makes a difference.

VII. CONCLUSION: In this experiment I learned that if you add salt to water then the temperature will get higher because salt helps it get hotter. It helps it get hotter by the ingredients in the salt that cause the water to need more heat to boil. The more heat there is the more it boils, and the more it boils the hotter the temperature. This experiment was done on a day when it was below freezing outside. This may have increased the time it took for the water to boil rather than the salt. Repeating this experiment in the summer would show if that is true or not.