Nathan Petersen

5th Period

Fizzy Lab Report

**1.** My question was “What will pop the cap faster, vinegar or heated water?”

and the reason I asked that is because vinegar tends to react with other substances well, and hot water makes things react faster too (because of the atoms moving faster). I found that the hot water popped the cap faster. It is important to know the answer because then you know what’s going on and why it did what it did.

**2.** If I put the part of the tablet in a tube with vinegar, it will pop faster than the other liquids (sugar water, vinegar, and hot water). I made this prediction because I thought even though heat makes atoms move faster, vinegar would still be faster. The independent variable is the liquid used. The dependent variable is how long it took until the cap popped. The controls are amount of liquid, amount of tablet, the tablet itself and the tube.

**3.** A) Break tablet into equal pieces

B) Fill tube with 50ml of liquid using for testing

C) Makes sure you are ready to close the cap quickly, and get your timer ready.

D) Drop tablet in tube and close cap as you press start on your timer.

E) As soon as the cap pops press stop and record your time

F) Repeat 3 times and take your average for each liquid

**4.** I turned in the paper with the data on it, so I don’t have it. I left a space open to draw it if I can get the data and you want me to.

**5.** I concluded that the hot water works better than the vinegar, therefore I reject my hypothesis. I think that the experiment and results were very good, but it probably would’ve been better if I used more liquids. I would hypothesize that if I use hot water then it will pop the cap faster than the other ones. The results make sense because the heat makes the atoms move faster, making the reaction faster.