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| **Procedure:**  **I. Setting up pH system**  A) Connect Serial box to the computer  B) Connect pH amplifier to Serial box  C) Connect pH probe to amplifier  D) Plug in Serial box to power source  E) Turn on Computer.  **II. Calibrating pH Probe**  A) Open the Logger Pro Program  B) Under experiment, go to pH system and run the experiment �pH vs. Time�  C) Once the program is open, go to the Calibrate option.  D) Completely clean the probe with Distilled water  E) Fill a clean beaker with your buffer and another clean beaker with distilled water.  F) Place clean pH probe in buffer solution, when the voltage readings on the computer stabilize, enter the pH of the buffer and click ok. (i.e. If you are using a Buffer with a pH of 3.5, once the voltage has stabilized, enter 3.5 into the pH box.)  G) Clean probe  H) Place clean probe into beaker with distilled water, once the voltage stabilizes enter a pH of 7.  I) Your system is now calibrated.  \*You will no longer need the Buffer solution  \* You will need to re- calibrate your system every time you exist the program and re-enter.  **III. Setting up the experiment**  A)With goggles, gloves, and aprons on, test the pH of HCl with pH paper (It should be 2)  B) Pour 100 ml of HCl into a clean beaker  C) Test with the pH probe to confirm accuracy  D) Set the collection increments on the program for once every seconds for 300 seconds, or 5 mins.  \*This needs to be done for each test.  **IV. Apple Cider Vinegar Test**  A)Mix one cup (237 ml) of tap water and one tablespoon (15 ml) of ACV in a clean beaker.  B) add 15 ml of mixture to the beaker of HCl, collect you first set of data.  C) save this data, add another 15 ml of mixture to HCl and run test again.  D) repeat steps B&C until all of the mixture is used. (approx. 11 runs)  **V. Catnip Test**  A) grind one gram of catnip very finely with a mortar and Pistil.  B) mass out in a paper cup cake cup .25 grams of grounded catnip  C) divide the remaining catnip into .25 gram increments and put them in their own paper cups.  D) add one paper cup�s contents to a fresh HCl solution and run data collection  E) repeat the runs, adding a cup at a time  F) you should have four runs (1 gram total)  **VI. Ginger Root Test**  A) Skin a fresh piece of ginger root.  B) Grate up as much as possible  **VII. Papaya Test**  A) Skin, take out the seeds, and cut up a whole papaya.  B) put the papaya in a blender and blend it until it is very liquid.  C) measure out 20 ml increments of papaya.  D) Add 20 ml of papaya to a fresh HCl solution and run a test.  E) add another 20 ml of papaya to the same beaker and run another test.  F) Do this until you see significant change in pH or run out of papaya.  **VIII. Tums Test**  A) Grind up one tablet with a mortar and pistil, put it in a paper cup.  B) repeat with another tablet.  C) add one tablet to a new HCl solution, run a test.  D) add the other tablet to the same solution, run another test.  \*Use these results to compare with the outcomes of the natural foods  **IX. Rolaids Test**  A)Follow the same steps as with tums (Pr)ocedure VIII.  [<-----Back](http://docs.google.com/Erin&Karen/materials.html) [Next----->](http://docs.google.com/data.html)  [[Home](http://docs.google.com/home.html)][[Introduction](http://docs.google.com/introduction.html)][[Hypothesis](http://docs.google.com/hypothesis.html)][[Procedure](http://docs.google.com/procedure.html)][[Data](http://docs.google.com/data.html)][[Conclusions](http://docs.google.com/conclusions.html)][[Bilio/Links](http://docs.google.com/biblio.html)]  [[2001 Projects](http://docs.google.com/index.html)][[2000 Projects](http://docs.google.com/AP2000/index.html)][[1999 Projects](http://docs.google.com/AP99/index.html)][[1998 Projects](http://docs.google.com/AP98/index.html)] |