

# Ph determinations



**ASSIGN  
BUSTER**

pH Determinations|| Intro to BiologyGleasonLab #3PurposeThe purpose of this lab was so that we can determine the acid and the basic nature of solutions by measuring their pH.

The pH of a solution can be found in many different ways. A.) pH paper- a paper that is specially treated that changes color depending on the pH of the solution. B.) Indicator dyes- They can be synthetic such as bromthymol blue and phenolphthalein or natural such as anthocyanin, the pigment in red cabbage. They will change color depending on the pH of a solution. C.

) pH meter- An electrical device than can measure hydrogen ion concentration and convert it into a pH number. A very sensitive and accurate way to measure pH. LabWe took 5 solutions labeled A-E. We put 3ml of each solution in different tubes. In the first set of tubes we placed a couple drops of bromthymol blue and recorded the color of the solution. In the second set of tubes we placed a few drops of phenolphthalein and recorded the color changes.

Questions 1.) What color does bromthymol blue turn in an acidic solutionThe color it changes is light orange or a yellow color. Basic solutionThe color gets darkerNeutral solutionThe color gets yellowish/green 2.) Which indicator dye is more useful bromthymol blue or phenolphthalein WhyThey are both good because they got the same results. 3.) What is the advantage of using pH paper over an indicator dyeThe pH paper because it measures the number of hydrogen ions that are in a given solution. Natural Indicators and Household ProductsThere are many natural products that change color with a change in pH. Extracts of blueberries, beets, radish, etc can act as pH indicator.

We are going to use the pigment from red cabbage as a pH indicator called anthocyanin. We tried to figure out which one of the five solutions were an acid, a base, or a neutral solution. pH of Household Products We filled six beakers. They consisted of Sprite, Dish Detergent, Vinegar, Laundry Detergent, Baking Soda, Ammonia and Aspirin. We added three drops of cabbage extract so that it can change a color. Questions 1.

) Which of the household products are Acidic- sprite, vinegar, aspirin Basic- Ajax, baking soda Neutral- dish detergent 2.) Why did we use Sprite instead of Coke Because Coke has a dye. Sprite is clear so you would be able to see a change of colors. 3.) Which of the three methods of determining pH seems to be the most accurate The pH paper